Harveian Lectures

ON THE

VARIOUS MANIFESTATIONS OF THE RHEUMATIC STATE

AS EXEMPLIFIED IN

CHILDHOOD AND EARLY LIFE.

Delivered before the Harveian Society of London,

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LECTURE III.

Pericarditis.—Its connexion with other phases of rheumatism.—Special characteristics in childhood.—Subacute, recurrent, dry.—Tendency to fibrous and chronic thickening rather than to effusion.—Endocarditis; subacute and recurrent likewise.—Special liability of children and of young girls.—Connexion of endocarditis with other phases of rheumatism.—The endocarditis of chorea.—Relation of pericarditis and endocarditis to the evolution of nodules.—Morbid changes in nodules and cardiac valves analogous.—Significance of this.—Different forms of valvular disease.—Mitral stenosis.—Early signs.—Double second sound at the apex.—Hypertrophy and dilatation.—Comparative rarity of dropsy.—The mode of death differs from that met with in adults.—Scarlatinal rheumatism.—Rheumatoid arthritis.—Special points in treatment.

MR. PRESIDENT AND GENTLEMEN,—Pericarditis is admitted into the rheumatic series without question. It is, I think, undisputed that inflammation of the pericardium owns rheumatism as its most common cause. Pericarditis may appear at any point in the rheumatic procession of events—first or last, alone or in combination with other phases. Most often it comes late, after endocarditis, especially when the heart is already hypertrophied and dilated. Sometimes it is associated with the valvular inflammation, is often accompanied by the evolution of nodules, and not unfrequently arises in connexion with chorea. The development of pericarditis in association with chorea apart from articular rheumatism is a link of association between them which is of considerable significance. Examples of different combinations and the place of pericarditis are shown in the illustrative cases, especially in Series II., VI., and X., and in the case of Kate B—— given in the first lecture, as well as in some examples which I am about to put before you. But the pericarditis with which we are most familiar—the acute general pericarditis of rheumatic fever—is not representative of the disease in children. The extreme distress; the panting, shallow respiration; the fluttering, irregular pulse; the strange delirium; the physical signs of friction all over the cardiac area as lymph is poured out; the extensive dulness, often following quickly as serous effusion takes place, spreading high up to the second or third rib; the muffled heart's sounds; the raised apex—all these classical signs are sometimes wanting, at other times largely modified, in the rheumatic pericarditis of childhood in its most usual form.

Such cases of acute general pericarditis *do* occur in the acute rheumatism of childhood, as well as in adults, but they form the exception. I have just had under my care at St. Mary's a girl of seven, Elizabeth S——,[1] who developed most acute pericarditis with chorea, and died of it in ten days. There was not the slightest accompanying articular affection, not the smallest joint pain or tenderness; the temperature ranged between 98° and 100° only, except for one night, when it reached 101·5°; but, most evil sign, the pulse ran up to 130 and 140. The child had had slight articular rheumatism seven months previously, and again a fortnight before admission and prior to the chorea. Her father had had rheumatic fever; her sister, aged twelve, subacute rheumatism. There was a rumbling mitral murmur. The child was thin, pallid, and feeble. The progress of anæmia since the advent of pericarditis was most remarkable; in the last few days of life it became extreme. Moreover—what I will ask you to mark especially—there were no nodules, so common an accompaniment of cardiac inflammation in a child, whether it be endocardial or pericardial, as I pointed out before. This very acute inflammation appears to be less identified with the development of nodules than the more chronic form.

Let me give another example of intensely acute general pericarditis, associated with equally extreme chorea, probably rheumatic. M. B——, a girl of fifteen, was admitted under my care at St Mary's Hospital in August, 1885, with chorea of the most violent kind, rapid respiration and panting dyspnœa. She had been ill about three weeks, but it was impossible to obtain any clear history, for the people who brought the patient could give us little information about her, and the girl herself was unable to utter a word. She made frantic attempts to speak, but could not articulate uttering only unintelligible sounds. The jactitations were so violent that she had to be fastened down in bed, and it was not possible to examine the chest satisfactorily, so constant and uncontrollable were the movements. By the aid of two nurses I was just able to make out that the area of cardiac dulness was increased, the heart's sounds—as, indeed, the feebleness of the pulse showed—almost inaudible, and a faint friction sound audible at one part. The diagnosis was rheumatic chorea and pericarditis with some effusion. Before evening, a few hours after admission, the patient died. On post-mortem examination, extensive pericarditis was found, the pericardial sac being greatly distended with turbid, flaky, sero-purulent fluid, and the surfaces thinly coated with recent lymph. There was also inflammatory thickening of the mitral valve. In this instance, the chorea, endocarditis, and pericarditis occurring in the same individual stamped the case as almost certainly rheumatic.

Now, cases of extremely acute pericardial inflammation like these occur as they do in adults. But this is not the most frequent and typical form of pericarditis in children. It usually occurs insidiously; a slight pericardial rub is noted perhaps, which may cease or continue without much change; the child is seen to be restless and uncomfortable, and complains of pain in the præcordial region; the pulse quickens to 120 or 130; the anæmia increases to a marked degree; the chorea, if present, becomes a little aggravated perhaps, or curious emotional attacks come on, the child being moved to tears or laughter by a word; the temperature is slightly raised, perhaps to 100° or 101°, but often remains normal if there is no accompanying arthritis, or pleurisy, or pneumonia; and with this a mitral murmur develops, or an existing one grows rougher, and subcutaneous nodules begin to appear on the elbows and knees, or ankles or occiput. The pericardial rub continues, or subsides after a few days, to reappear again after an interval perhaps, or, although it never reappears, the rapid action of the heart continues, in spite of digitalis, strophanthus, or ergot; fresh nodules come out; the area of cardiac dulness increases, and there is muffling of the sounds over the mid-cardiac region, but no sign of effusion; the heart is clearly growing more bulky and the pericardium thicker, and emaciation and anæmia proceed apace. The child daily grows more pallid, weak, and wasted; the pulse grows more feeble; and so, without extreme dyspnœa or dropsy, the patient sinks slowly from exhaustion and heart failure.

Such, gentlemen, is a picture of the pericarditis of childhood in its most usual form, and so frequently associated with the evolution of subcutaneous nodules, often with endocarditis, and often with chorea. It represents very closely the case of J. T——, Series X. And mark what is found after death: usually the two surfaces of the pericardium glued together by a thick layer of adhesive lymph; the pericardium itself greatly thickened; the walls of the sac tough, dense, fibrous tissue, an eighth of an inch thick, perhaps; the chronic inflammatory process spreading sometimes from the external sac to the anterior mediastinum, so that these are matted together in a thick fibrous mass—"indurative mediastino-pericarditis," as seen in the specimen from one of these cases now before you.

Take, again, the case of C. H. B—— (Series II.), a boy of six, who was admitted to the Hospital for Sick Children on May 8th, 1888. The boy had never complained of anything until five weeks before, when he had stiffness in that typical

[1] Children's ward, Dec. 1888.

place which I mentioned in the first lecture—viz., the hamstring tendons—and in the ankles; but they were not noticed to be swollen or tender. Then he had pains in the shoulders, and then in the chest, for which he was poulticed; but he was never kept in bed, nor was it thought necessary for a doctor to see him, although he was observed to be very breathless on exertion. The pains were supposed to be growing pains merely; rheumatism was not thought of. Latterly he had grown very excitable and nervous, and had twitching of the limbs. On examination, he was found to have a double mitral murmur with a highly accentuated second sound, and considerable hypertrophy; the dulness reached to the left edge of the sternum, and upwards as high as the third rib; the apex beat was in the fifth space, three-quarters of an inch outside the left nipple—so that the valve disease must have been of considerable standing, due to endocarditis of much earlier date than the late articular pains. There was also discovered a crop of fibrous nodules on the elbows, knees, and malleoli, so small as not to attract attention unless carefully looked for. The boy was extremely anæmic; the pulse suspiciously rapid (124). By the end of the month these nodules had attained considerable size, and on the 9th of June a fresh development of still larger nodules took place on the back of the head, the malleoli, and the knees; with this, pericardial friction occurred two days later, and great pain in the cardiac region, relieved by poultice. In a week's time all pericardial friction had disappeared, but the boy remained pale and anxious, the pulse was quick and irregular, pleuritic friction was heard at the base of both lungs, and the systolic mitral bruit had become musical. A month later (July 14th) a third crop of nodules of large size appeared on the knees and elbows. The cardiac excitement continued, the pulse ranging from 130 to 140; pain in the chest came on; emaciation and anæmia were progressive. No friction could be heard, but the increasing area of cardiac dulness, the rapidity of pulse, which neither digitalis nor strophanthus could control, showed no diminution; and thus, in spite of all treatment, the boy went from bad to worse, and died from heart failure on Sept. 6th, just four months after admission. It is to be noted how in this case the grave symptoms proceeded *pari passu* with the eruption of large nodules, rapid pulse, progressive anæmia and emaciation, and how steadily and resistlessly the disease marched on in this way to a fatal end, uncontrolled by any remedial agent.

Take, again, another case, that of Arthur C——, a boy of eleven, who is now under my care at Great Ormond-street Hospital. He came into hospital first in September, 1888, with subacute arthritis, great anæmia, a loud double mitral murmur, and great hypertrophy. He quickly went out convalescent, but was brought back on November 12th, again failing in health. On the 22nd the temperature, which had been normal, rose to 101°, and well-marked double tonsillitis followed. This was over in three days, and the temperature fell to normal; but a week later (Nov. 28th) he became restless, his respirations went up to 32 and his pulse to 112, he had headache, and vomited. The following day (the 29th) the first sign of nodules was detected on the knees and elbows. The heart's action became more excited; by Dec. 6th it was violent, and the anæmia had greatly increased; the nodules had grown larger, some to the size of small peas, and a pericardial friction sound was audible. The temperature has fallen since to normal, but the pulse keeps between 100 and 112, and there has been dyspnœa at times. The friction continues, the anæmia increases, and the prognosis is most grave. Note here, again, the rapid pulse, the increasing anæmia, and the development of nodules concurrently with the development of progressive intractable pericarditis.[2]

Rheumatic pericarditis, then, in early life is apt to be subacute, persistent, recurrent, and progressive; going on, not for days only, but for weeks or months; the inflamed membrane slowly or intermittently exuding, not serum, but adhesive lymph, causing adhesions more or less complete, and development of fibrous tissue, so that the pericardium becomes thickened, sometimes enormously, as you see in the specimen produced. This form of subacute progressive pericarditis might almost be called "nodular," so frequent is the evolution of these significant bodies associated with it. Their eruption appears to have a deep meaning; when they are numerous and large, they indicate a condition so grave, and apparently often so uncontrollable, that as I said before, I have come to regard them as almost a sentence of death.

What is the pathological relation of the fibrous nodule to the fibrosis of the pericardium? It would seem as if the same virus or influence which stirs up the inflammatory change in the fibrous tissues of sheaths and tendons, and which results in the formation of nodules, stirs up in the same way fibrous organisation of lymph or proliferation of the fibrous tissue of the pericardium. Dr. Barlow found in one case that the pericardial adhesions had a distinctly nodular character;[3] and Dr. Angel Money,[4] in a similar case, with extreme pericardial adhesion, found a distinct nodule extending from the pericardium inwards, and invading the heart's substance. I believe that the fatal issue is largely dependent upon the tightening grip of the adherent contracting thickened pericardium, strangling, as it were, the muscle and muscular movements of an often already crippled heart; possibly also the heart muscle is weakened by fibrous interstitial invasion and by concurrent myocarditis; hence the rapid pulse and the progressive feebleness of cardiac action. The effect of the continued constriction of the heart by the tough, thickened pericardial casing in early life upon the due growth of the heart itself was first brought home to my mind some years ago by the following remarkable case.

A girl, aged nineteen, was admitted into St. Mary's Hospital with general dropsy, for which no satisfactory cause could be made out. She had no signs of either cardiac or renal disease, but she had considerable ascites and hydrothorax, for which she was repeatedly tapped. At last she died. On post-mortem examination, the heart was found tightly enclosed in a bag of dense unyielding fibrous tissue, the adherent pericardium enormously thickened; the heart itself was as small as that of a child of ten years old; there was no other lesion of any kind. There could be no doubt that the girl had had fibrous pericarditis as a child, and the embarrassed heart, tightly embraced by the contracting tissue, could not grow; at length, becoming unequal to carry on the circulation of the enlarging vascular system, dropsy followed. Sir T. Watson[5] observed a similar result. He says: "When the adhesion takes place during youth, as in connexion with acute rheumatism it is very apt to do, it seems to prevent the further growth of the heart, and virtually leads to atrophy of that organ or a disproportionate smallness of its cavities, vessels, and general size"; and Bouillaud mentions the case of a woman, aged sixty-one, whose heart was the size of that of a child's of ten or twelve, and marked by furrows and opaque spots from old pericarditis.[6] Usually however, in the case of children, the pericarditis persists or recurs, or it comes late, when the heart is already dilated and hypertrophied from valvular disease, and the new clog, the tightening grip of the pericardium, is more deadly than it would be to the normal organ. The heart is not small, but enlarged, and although one may believe that its further development might be interfered with, yet death usually takes place before the disproportion between heart growth and the development of the rest of the body has become conspicuous or extreme.

Endocarditis.—Endocarditis occurs acutely in the course of articular rheumatism in children, just as it does in adults. The position of endocarditis as one of the rheumatic inflammations is like that of pericarditis, established and allowed. Yet in childhood it often occurs quite apart from any concurrent affection of the joints; and it may develop at any period in the rheumatic procession of events, early or late, in combination with arthritis or pericarditis, or chorea, or nodules, with any or all of these combined. Usually it comes early in the series, and recurs later, in contrast to pericarditis, which is more apt to appear towards the end. An example of this is given in Series II., where it came first. The rule is: endocarditis early; pericarditis late. But as with pericarditis, so with endocarditis; the acute form in connexion with severe articular rheumatism is far less common than one slight and trivial apparently at the time, accompanying an equally slight articular affection or chorea; all sign of it perhaps disappearing for a season, yet recurring and persisting until

[2] This unfavourable prognosis has since been verified. The pericarditis continued in spite of treatment, anæmia and dyspnœa increased, and the boy died about six weeks later. Post-mortem examination revealed general dry pericarditis, with great thickening, and nearly complete adhesion.

[3] Brit. Med. Jour., Sept. 15th, 1883, p. 511. [4] Ibid.

[5] Principles and Practice of Physic, fourth edition, vol. ii., p. 301.

[6] Payne's, Jones', and Sieveking's Pathological Anatomy, 2nd ed., p. 344.

the injury to the valve becomes serious and finally fatal. It is not, as it is so commonly with adults, a sharp attack of endocarditis accompanying the articular affection, ceasing with it, and followed slowly by chronic after-changes in the valve or muscle; but subacute, insidious, progressive.

In the first lecture I endeavoured to show how an extremely slight and transient arthritis, hardly noticeable, not recognised as rheumatic, probably not coming under a doctor's observation at all, might be accompanied by valvulitis, running on unsuspected at the time, and only discovered afterwards when grave cardiac changes have developed. Dr. Sibson, whose name will always be honoured in this Society, affirmed that the more severe the rheumatic attack, the greater the tendency to cardiac inflammation. Probably this is so. Severe attacks of articular rheumatism are, however, rare in young children; and, light as the arthritis usually is, children are nearly twice as liable to cardiac inflammation as adults.[7] Valvular disease of the heart in childhood is not invariably the result of rheumatic endocarditis. There are certain exceptions. We may exclude the cases of congenital disease and those where the endocarditis is set up by one of the specific fevers, or the septic or uræmic poison. There will remain for consideration three classes—viz., (1) those cases in which the valvular affection arises in association with distinct attacks of articular rheumatism; (2) those associated with chorea in which no articular affection is observed; and (3) those in which no connexion with any other morbid condition of any kind can be traced—what may be called the "unexplained cases."

Now, with regard to the first class, cases of heart affection connected with articular rheumatism, the organic change would, I think, be generally allowed to be due to rheumatic endocarditis. And these form the largest proportion. Dr. West[8] gives statistics of 135 cases of organic valvular disease, of which in 60 per cent. rheumatism was "either known or asserted on good grounds to have been the starting point of the mischief"; and he quotes the estimate of M. Roger as 78 per cent., and that of M. Cadet de Gassicourt as 81 per cent. Dr. Goodhart's statistics yield 62 per cent.[9] My own statistics of 195 cases specially examined and investigated for the purpose, including the evidence of rheumatic fever in parents or immediate blood relatives, give 79 per cent.[10] All these are based upon the occurrence of articular rheumatism only, and the absence of evidence of this in any given case is not to be taken as positive proof of its non-rheumatic nature.

The only question which arises, then, is with regard to the two remaining groups, those associated with chorea alone, and the group of unexplained cases. Are these the result of rheumatic endocarditis? Taking the latter first, their number is not large. Dr. Goodhart, out of 248 cases of heart disease, found all but 55 associated with either rheumatism or chorea.[11] If from this remainder we take the congenital, pyæmic, and fever cases there are few left unexplained, and of these few many are probably rheumatic, where slight arthritis has been overlooked or been absent. There remain, then, only the choreic cases—i.e., the cases where organic heart disease arises in chorea, but is not known to be associated with any manifestation of articular rheumatism. Are these to be included as examples of rheumatic endocarditis? In my judgment most of them—possibly all. The antecedent probability is largely in favour of their rheumatic origin. My reasons are these. The cardiac affection of chorea is as a rule organic, not merely functional. Functional murmurs do no doubt arise occasionally in chorea—e.g., the ordinary hæmic murmur of the pulmonary orifice. But that the mitral murmur of chorea is not usually of functional origin seems to be established by the following considerations:—

1. If the mitral murmur were what is called hæmic, it is strange that in this particular disease—chorea alone—the mitral valve should be the seat of it, such functional disturbance being in other conditions associated with the pulmonary and aortic orifices; and further, if a mitral hæmic murmur did exist, *a fortiori* a pulmonary one should exist also, but it does not. Moreover, the mitral murmur of chorea comes early as a rule, before anæmia and debility arise.

2. The hypothesis that the mitral murmur of chorea is commonly spasmodic or paretic, as suggested by Dr. Sturges, although plausible and ingenious, is a pure hypothesis, unsupported by positive evidence. It is rendered improbable by the fact that, as a matter of clinical observation, the murmur does not arise especially in connexion with irregular action of the heart, as I have repeatedly satisfied myself; and, moreover, as Dr. Osler[12] points out, the general immunity of involuntary muscle in all choreic disturbance is against the theory of spasm; while, as to paresis, the murmurs have no special association with paretic chorea.

3. In fatal cases of chorea endocarditis is almost invariably found post mortem. There is no other disease in which it is so constant.[13]

4. In fatal cases of valvular disease arising in association with chorea, the changes found in the valves post mortem are identical with those from endocarditis from other causes, while the valve chiefly affected is the mitral valve, the one most liable to endocarditis.

These considerations are borne out by careful clinical observations, such as those of Dr. Stephen Mackenzie and Dr. Osler. The former found the murmur of chorea persistent in 60 to 80 per cent. from one to five years afterwards.[14] Dr. Osler, independently pursuing a similar inquiry comes to a like result. In 110 cases of chorea examined two years afterwards, organic heart disease was found in 54.[15] A large proportion of choreic murmurs therefore persist or reappear, and in some instances do not develop until after the chorea, when all motor and paretic disturbance has disappeared.

The valvular affection of the heart, then, in chorea is in the vast majority of cases organic, due to endocarditis. Is the endocarditis rheumatic? The evidence in favour of this is extremely strong. First, there is the frequent association of articular rheumatism with chorea and endocarditis together; secondly, the frequent association of articular rheumatism with the two independently, with chorea on the one hand, and with endocarditis on the other; thirdly, the especial association of endocarditis with those cases of chorea which are also associated with articular rheumatism. The great proportion of cases of endocarditis which arise in connexion with chorea arise in choreas connected with articular rheumatism. Endocarditis picks out, so to speak, the rheumatic cases. In 84 cases of chorea of which I took precise notes there was a history of articular rheumatism in either the patient or near blood relatives in 62. In the remaining 22 there was no such history. Of the 62 cases of chorea with rheumatic history, 43, or 69 per cent., had organic heart disease. In the 22 choreas without rheumatic history there were only 6 cases of organic heart disease, or 27 per cent.[16] The statistics of the Collective Investigation Committee tell the same story. They yield 50 per cent. of heart affection in choreas with rheumatic history, as against 35 per cent. in those without rheumatic history; and these statistics, as stated, necessarily give too low an estimate of the rheumatic influence, since the only test of rheumatism admitted is the antecedent or concurrent association of articular affection. Yet the evidence afforded by nodules, by pericarditis, and by erythema exudativum is of considerable weight. How suggestive, for example, are cases of chorea such as that of the child I exhibited at the last lecture, who has a plentiful crop of nodules accompanying endocarditis, yet in whom there is no history of articular affection at any time, either in the patient or her family;[17] and that of the girl now under my care at St. Mary's Hospital,[18] who came in with chorea, and has since developed pericarditis, with only the slightest and most transient articular affection, lasting only twenty-four hours. Lastly, there is the indirect evidence afforded by the significant fact to which I drew attention in the last lecture—namely, the singular harmony which exists between the incidence of articular rheumatism, of chorea, of rheumatic chorea, and of choreic heart disease, upon the sexes between the ages of

[7] Collective Investigation Records, vol. iv., p. 71.
[8] Diseases of Infancy and Childhood, seventh edition, p. 553.
[9] Diseases of Children, p. 528-9.
[10] THE LANCET, Oct. 31st, 1885, p. 795.
[11] Diseases of Children, p. 529.
[12] American Journal of Medical Sciences, vol. xciv., new series, p. 374.
[13] Ibid., p. 375.
[14] Trans. Int. Med. Cong., 1881, vol. iv., pp. 100, 104.
[15] American Journal of Medical Sciences, vol. xciv., new series.
[16] THE LANCET, Oct. 31st, 1885, p. 794.
[17] Sarah M——, admitted to the Hospital for Sick Children, Nov. 15th, 1888, under Dr. Barlow. Since the above was written a very significant series of events has occurred—namely, acute tonsillitis, followed after an interval of a fortnight by pain, swelling, and tenderness of one small joint only, that of the right middle finger; this lasted two days, and then disappeared. On the same day pericardial friction was discovered, and still continued when this note was taken a week later.
[18] Kate B——, Albert Victor ward, Jan. 1889.

eleven and fifteen. If the statistics are to be trusted, girls are from two to three times as liable as boys to articular rheumatism, to chorea, to rheumatic chorea, to heart disease in rheumatic chorea, and to heart disease in chorea where there is no history of rheumatism. And apart from all direct evidence of rheumatism, when endocarditis appears in association with chorea, in view of the fact that rheumatism is the chief cause of endocarditis on the one hand, and that it is the only disease closely associated with chorea on the other, is it not more reasonable to suppose, when endocarditis and chorea occur together, that rheumatism is at the root of both, rather than that the valvular inflammation is set up by disordered muscular action, or that it depends upon some mysterious condition connected with chorea of which we know nothing?

It has been suggested that strain, or shock, or violent action of the valves is the source of choreic endocarditis. This is, I think, untenable for many good reasons. In the first place, the heart does *not* act violently in chorea, but feebly; tension is lessened, not increased. Secondly, in diseases such as exophthalmic goitre, where the valves flap to with great force, valvulitis is not thereby set up, although a functional murmur is sometimes developed. Thirdly, heart disease does not arise especially in connexion with chorea associated with fright, when a sudden strain might be postulated, but in connexion with chorea associated with rheumatism equally whether fright is or is not present as a co-factor. The most cogent argument of all, however, is that drawn from pericarditis. Pericarditis arises in chorea quite apart from any articular affection as often in proportion to its general frequency as endocarditis. How is this to be accounted for? Neither the strain hypothesis, the paretic hypothesis, nor the spasm hypothesis will explain choreic pericarditis any more than it will explain choreic nodules or choreic erythema. So far the only reasonable explanation of the endocarditis of chorea, as of the pericarditis, is that it is of rheumatic origin. As Dr. Barlow has surmised, and as I shall endeavour to demonstrate presently, the active morbid change in the cardiac valves in subacute endocarditis appears to be analogous to that in the subcutaneous fibrous tissues giving rise to nodules. Such nodules are frequently developed without concurrent articular rheumatism, but with endocarditis, in the course of chorea. Is it not probable that in choreic endocarditis a subacute change of this kind goes on, and that many of the murmurs at least which come and go or develop afterwards are really due to this cause, rather than to functional disorder? The endocardial change may be sometimes as passing or recurrent as we have seen that the nodular development may be.

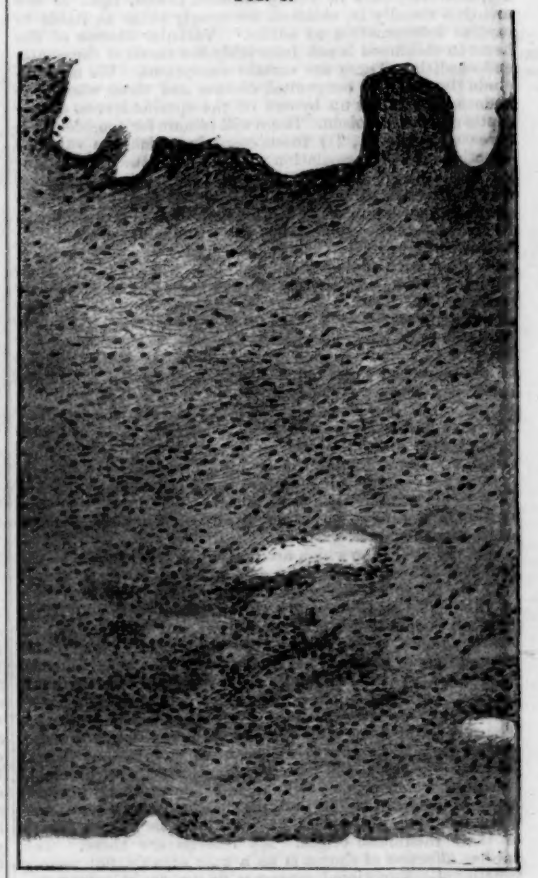
Turning now from the evidence that the endocarditis of childhood is chiefly rheumatic to the consideration of the condition in itself, I have said that it is less acute, severe, and passing than with adults; that it is especially liable to relapse, and recur, or smoulder on for weeks or months. This is well shown in the case of W. S—— (Series VIII.), where endocarditis, beginning in 1886, occurred again in 1887, and then continued with arthritis, chorea, erythema, and nodules, pretty constantly, until the rheumatic series closed in death in March, 1888. The cases of H. W. B—— (Series I.), C. H. B—— (Series II.), and J. T—— (Series X.) afford additional illustrations.

In the case of B. H——, a boy aged six years and a half, now under my care in Great Ormond-street Hospital, a similar slow recurrent endocarditis is going on. The boy has never had any sign of what is ordinarily termed rheumatism, except some pains in the feet attributed to an accident, with pain in the cardiac region and sweating; but there is a history of rheumatism on the mother's side. He has a well-marked mitral regurgitant murmur and reduplicated second sound at the apex. Nodules are being developed; he grows more pale and ill; has had two attacks of sudden dyspnœa, with signs of circumscribed pneumonia, evidently embolic. Fresh nodules continue to appear; the murmur grows harsher and more musical. There can be little doubt that chronic endocarditis is going on, and the injury to the heart structures progressive.

A more striking instance still is that of H. G——, a boy aged fourteen, whose case I have published before,[19] and which I shall therefore allude to only very briefly here. The patient had large nodules on the flexor tendons of the palms and fingers, accompanied by subacute recurrent endocarditis, which had probably commenced with an attack of slight arthritis about a year previously. The joint rheumatism had received no serious attention; the heart was not examined. The boy continued to follow athletic sports, with the result of setting up extreme regurgitant aortic disease and dilatation of the left ventricle. It is interesting to note, in passing, that the boy's sister had had chorea without any articular rheumatism; his grandmother, rheumatic fever.

The eruption of subcutaneous nodules is associated with grave progressive endocarditis as closely as with progressive pericarditis; and I think an examination of the pathological process going on in the valves in endocarditis of this kind explains the connexion. The inflammatory process in the

FIG. 1.



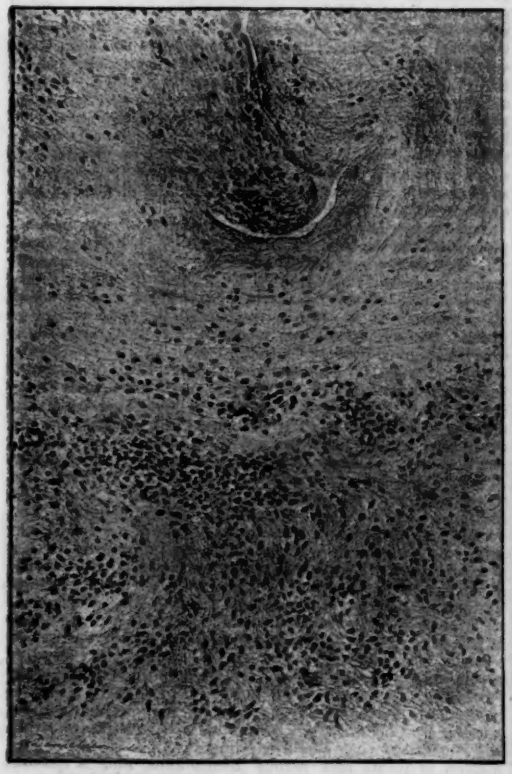
Section of mitral valve in a case of rheumatic endocarditis in a child, showing proliferation and cell infiltration of subendothelial fibrous tissue. (Ellen M——, aged eight years and a half; Hospital for Sick Children, Great Ormond-street; Dr. Barlow; March 28th, 1888. Arthritis, nodules, morbus cordis, purpura.)

valves, as Dr. Barlow ventured to anticipate seven years ago, appears to be identical with that met with in the nodules—viz., nuclear proliferation, cell infiltration, spindle cells in process of transformation into fibrous tissue, wavy bands of fibres, and vessels. The microscopic appearances of a thin section of the mitral valve of the patient, J. T——, Series X., are shown in the specimens exhibited, for which I am indebted to Mr. Priestley, and reproduced in the drawing (Fig. 1), and those in a subcutaneous nodule in Fig. 2. The proliferation and cell infiltration of the fibrous tissue which forms the framework of the valve is the most conspicuous feature, and it is to the proliferation of this layer that most of the swelling is due. There is, moreover, infiltration of the whole thickness of the valve with round cells, nuclei, or

[19] Lectures on Heart Disease in Children, THE LANCET, Oct. 17th, 1885, p. 703.

leucocytes. In some specimens there can be seen distinct proliferation of the endothelium, and in some a deposit of fibrin on the surface in which leucocytes are visible. But the chief change—the greatest and most important change, that which causes the thickening and rigidity—is the proliferation of fibrous tissue, which is the leading feature of the morbid process seen in the subcutaneous nodule. Now, looking at the affection of the fibrous tissues of the joints, of the subcutaneous fascia, of tendons, of the pericardium, and of the endocardium, it appears that the *materies morbi* of rheumatism, whatever its nature, sets up similar irritant changes in fibrous tissues in all these parts. But since the nodules are rarely found in adults, although so common in children, and that endocarditis and peri-

FIG. 2.



Section of subcutaneous tendinous nodule in acute rheumatism, showing active proliferation and cell infiltration of fibrous tissue. (John T——, aged seven years and a half; Hospital for Sick Children, Great Ormond-street; died Aug. 6th, 1888. Chorea, arthritis, endocarditis, pleurisy, nodules, pericarditis.)

carditis are likewise more common in children, while arthritis, on the other hand, is less severe, it would appear further, that in early life the fibrous tissues of subcutaneous fasciæ, of tendons, of pericardium, and of endocardium are far more sensitive to the morbid stimulus, more easily excited to proliferation, than the same tissues in later life; while, on the contrary, the joint fibrous tissues are less susceptible to the poison in children than in adults. It seems clear, moreover, that the susceptibility of subcutaneous fibrous tissues, and the susceptibility of the fibrous tissues of endocardium and pericardium go together; and this circumstance, as suggested before, affords a possible clue to the nature of the evanescent mitral murmurs of rheumatic arthritis and chorea. The rapid development of the nodules in some instances, in the course of a few days even, and their equally quick disappearance on occasion, suggest that the murmur which arises and disappears, and which is styled functional, is really caused by the development of similar inflammatory cell growth in the valves and chordæ, which may subside in them as quickly as we see it does in a subcutaneous nodule. This correlation of nodules and valvulitis gives the appearance of the former great clinical significance, as probably indicative of a similar change going on in endocardium or pericardium, or both. When few or small, they must be regarded as serious signs; when large and numerous, they are grave warnings of the existence of a condition of ultimate danger.

Ulcerative endocarditis is most rare in the rheumatism of children, since it is met with chiefly in patients broken down by drink and disease. The earliest age at which I find its occurrence recorded is in a patient of my own at the Children's Hospital, Annie I——, a girl of eight.[20] Senator observed it in a boy of fourteen, and Dr. Ord in a girl of sixteen. It possesses no special features which require notice here. Rheumatic endocarditis in children, as in adults, attacks mitral, aortic, and tricuspid valves, the former by far the most commonly; mitral regurgitation is the most usual resulting lesion, although mitral stenosis is far more frequent than is generally supposed. It is in the latter that the chief interest centres.

It is well known that mitral stenosis is met with most frequently in young women. Of 264 cases collected by Sir Dyce Duckworth,[21] there were 177 females and 86 males. And this relation between the sexes probably holds good in the case of children, in accordance with the great preponderance of heart disease in girls between eleven and fifteen. Mitral stenosis is in its origin especially a lesion of childhood and early life. I find 33 cases with presystolic murmur and 24 with reduplicated second sound at the apex, indicating commencing stenosis, out of 273 cases of organic heart disease in children of which I have accurate record. The youngest patients were two boys of four. Yet the age of the youngest patient in Sir Dyce Duckworth's list was fourteen. Dr. Fagge had no instance under ten;[22] Dr. Hayden two only of seven years old.[23]

It was formerly taught that mitral stenosis is less often rheumatic than any other valvular affection. As a matter of actual fact, this form of heart disease—in children at any rate—is especially rheumatic, and because it is so associated with the rheumatic endocarditis of childhood I lay stress upon it here. Dr. Sansom found 50 per cent. with a history of articular rheumatism or of pains.[24] Sir Dyce Duckworth's cases yield 60 per cent. My own statistics are still more remarkable. Taking children alone, I find this striking evidence of its rheumatic relation. Of 57 cases, in 44 there was acute rheumatism in the patient; in 20 of these in the family also; in 4 more in the family alone, leaving 9 only in which there was no rheumatic history. Putting out of the question family history, then, there was personal history of rheumatism in 44 out of 57, or 79 per cent.

It is in the period of childhood that mitral stenosis most commonly commences. The reason why it has not been more commonly observed is perhaps due to the fact that it is usually in the initial stage. It is, as Dr. Sansom has shown,[25] the special product of the slight, subacute, slow, recurrent, rheumatic endocarditis which is characteristic of childhood. The stenosis does not usually reach the degree when it is proclaimed by the loud, vibrating, prolonged presystolic murmur, until a few years have passed. The slight rumble, or the reduplicated second sound, escapes notice, or attention is drawn away from it by an accompanying regurgitant bruit. Hence it is discovered later, with startling frequency, just after childhood. Cases are met with in which this condition is found to exist without any rheumatic attack to explain it. In these instances I believe it has had its first origin in childhood, arising unnoticed with a slight arthritis, or a crop of nodules, or a chorea, or alone, as the sole manifestation of a rheumatic outburst.

The earliest sign of mitral stenosis is reduplication of the second sound *at the apex*. Dr. Sansom has observed generally,[26] that "reduplication of the first or of the second sound is an early sign of stenosis." But I would limit the statement to reduplication at the apex, audible over the mitral area only, or at least having its maximum intensity there. Dr. Sansom gives two cases[27] in which this local

[20] Post-mortem Book, vol. iv., 1887.
[21] Etiology of Mitral Stenosis (pamphlet).
[22] Guy's Hospital Reports, Series 3, vol. xii.
[23] Diseases of the Heart (Dublin, 1875), p. 964, et seq.
[24] Lettsomian Lectures, second edition, p. 130.
[25] Ibid., 1886, p. 80. [26] Ibid., p. 22
[27] Trans. Med. Soc., vol. v., p. 204.

limitation was observed, but he does not differentiate them from the rest. Now, although reduplication of both first and second sounds, audible over the aortic and pulmonary valves at the base of the heart, occurs in certain cases of mitral stenosis, it is not this with which I am concerned; that is not an early sign according to my experience. It is reduplication *at the apex* which is the significant early sign; basic reduplication usually comes later, with a pronounced presystolic murmur or with mitral regurgitation, and it is explained readily enough by the difference in tension in the pulmonary artery and aorta, causing asynchronous closure of their respective valves. It appears, however, to be generally assumed that this asynchronism of the pulmonary and aortic valves will account for *all* reduplication. But it certainly entirely fails to explain reduplications audible only at the apex. If the doubling of the sound were caused by the asynchronous closure of the aortic and pulmonary valves, it would be audible over their position—i.e., at the base of the heart,—but it is not. Dr. Sansom saw this difficulty, and to him the credit of a more correct explanation is due. He suggests that the *first* of the two second sounds is the normal one caused by the simultaneous closure of the pulmonary and aortic valves, and the *second* by the sudden tension of the mitral flaps as the ventricle relaxes. The blood in the auricle, in a state of increased tension, drives open the mitral door, and, rushing round the sides of the ventricle, gets underneath the curtains—the anterior one of which, as Dr. Macalister has shown, is stretched tight from the basal ring to the top of the papillary muscle—and thus gives rise to a sound of tension.[28] This explanation is, I think, correct in the main—so far as this, at least: that one of the two second sounds—viz, the second—is mitral in origin. It is not audible at the base; only one is audible over the aortic and pulmonary area, while two are audible over the mitral area. The one which is heard over the mitral only must be produced there. It seems to me that the most probable explanation is that the first of the two second sounds is the normal one caused by the click of the basic valves, as Dr. Sansom suggests, the pulmonary element being accentuated and rendered louder by increased resistance in front. The second of the two second sounds is due to the smack or click of the forcible opening of the swollen, rigid mitral, with shortened chords, kept closed with difficulty by the contracting ventricle, and springing back suddenly as the ventricle relaxes, and exerts its suction power, aided by the increased tension in the left auricle, not by the auricular contraction which occurs later. The suction power of the relaxing ventricle has been shown by Marey and Fick, and Goltz and Gubler, to be considerable at the beginning of diastole, possibly as much as 23 millimetres of mercury, independent of respiration.[29] This view is supported by the fact that, after the second of the two second sounds—i.e., the one which Dr. Sansom and myself take to be the *mitral* sound—there is in some instances a soft bruit, a distinct diastolic murmur, probably due to the rush of blood through the narrowed aperture caused by the auricular contraction, which comes, not at the very beginning of diastole, but a moment after its commencement. Reduplication of the second sound at the apex, then, is, I think, the earliest sign of swelling and rigidity of the mitral flaps, and consequent imperfect opening of the valve. Whether the explanation I have given be accepted or not, there can be no question as to the connexion of this morbid sound with early mitral stenosis, and of its clinical significance.

Hypertrophy and Dilatation.—These secondary changes proceed more rapidly in children than in adults. The first develops apace, in accordance with the general law before mentioned—that the tissues respond to stimulation and grow more rapidly in childhood; and the second—dilatation—perhaps because the tissues are more soft and yielding.

The following is an example of rapid dilatation and hypertrophy. George B——, aged six, was admitted into Great Ormond-street on April 29th, 1879, with general cardiac dropsy. He had had scarlatina with articular rheumatism six months before. After death the heart was found to be hypertrophied and still more dilated, weighing seven ounces, as large as that of a child of eleven or twelve. There was no valvular lesion of any kind, except dilatation of the orifice; and no history of any rheumatic affection previous to the scarlatina.

Look, again, at the case of Harold G——, with aortic regurgitation, previously mentioned. The first attack of rheumatism was only sixteen months before I saw him, and he had already enormous enlargement, chiefly dilatation, of the left ventricle. On observation of these cases in hospital, these changes are seen to advance at a rate unknown in later life.

As hypertrophy develops rapidly in children, so compensation is usually for a time exceptionally complete; and, as a further result of this effective compensation, great enlargement of the liver and spleen, pulmonary apoplexy, and extreme dropsy are rare in the younger children, becoming more common as age advances. It is an unusual thing to see a little child blue, turgid, and waterlogged—a sight so sadly frequent in the last stage of mitral disease in adults. Dr. Goodhart has observed these facts, and attributes them to reduction of the whole blood-supply as part of the general wasting, which is so conspicuous a feature. This probably plays some part in addition to efficient compensation. But there is still another reason. Children with severe heart disease, as a rule, die from other causes before the stage of grave tricuspid leakage is reached. For in children the mode of death from mitral disease differs from that we see in later life. Instead of engorged liver and lungs, with blueness, extreme dyspnœa, and general dropsy, there is rapid wasting, progressive anæmia, feebleness, and death from asthenia rather than from the direct injury to the mechanism of circulation, unless it be the strangling grip of pericardial exudation and adhesion.

Scarlatinal Rheumatism.—The account of the various phases of rheumatism would be incomplete without some reference to the scarlatinal affection. Articular inflammation appears now and again in the course of scarlet fever, which can in no way be distinguished from that of acute rheumatism. It is often accompanied by endocarditis or pericarditis, and sometimes by chorea. Henoch[30] records a case in which acute arthritis appeared in the first week, followed by mitral murmur and chorea. This scarlatinal rheumatism, although it may come late, in most cases arises early; Dr. Barlow noted it as early as the third day.[31] In a series of cases observed by Dr. Ashby of Manchester, the symptoms supervened with great regularity at the end of the first week. The endocarditis or pericarditis which comes late in the course of scarlatina are possibly uræmic; but uræmia does not set up inflammation of joints. Dr. Ashby inclines to the view that the arthritis is of septic origin, due to foul throat, or otitis, or empyema, and not a true rheumatism. The theory of septic poisoning, indeed, carries us a step further than the uræmic, for septicæmia produces arthritis as well as pericarditis and endocarditis, and septicæmia does undoubtedly arise in scarlatina in the way mentioned, as I have seen more than once. But then the articular affection of scarlatina is not especially associated with bad throats, or otitis, or empyema, or with other signs of septicæmia; moreover, septicæmia will hardly explain early scarlatinal rheumatism, or the occasional concurrence of chorea. It seems clear that either genuine acute rheumatism does occur in the course of scarlatina, or else that the scarlatinal virus itself occasionally produces an inflammation of joints and serous membranes, and a nervous choreic disturbance analogous to and indistinguishable from that set up by the rheumatic poison. It is curious to observe, too, that the special liability to acute articular rheumatism, which is so marked in girls, extends to this scarlatinal form—the numbers being twenty girls to nine boys, the inequality between the sexes being most marked after ten years of age. For this interesting fact I am indebted to Dr. Gresswell, who has analysed 588 cases of scarlatina.

Rheumatoid Arthritis.—I had it in mind when I planned these lectures to say something of rheumatoid arthritis. But the shortness of time and the length of the subject prevent my finding place for it. I will merely say that, although it is uncommon in childhood, it does occur, and, as Sir A. Garrod long ago pointed out, sometimes in its most severe and intractable form. The disease in children appears to be due to the same causes as in later life, and to differ in no material respect from the type with which we are familiar in adults.

Treatment.—Almost the whole interest and importance of rheumatism in children centres in the cardiac inflammation and its results. The one great aim and object of treatment

[28] Lettsomian Lectures, second edition, p. 123.
[29] Macalister: Brit. Med. Jour., Oct. 28th, 1882, p. 123.
[30] Diseases of Children, p. 30. (Eng. Trans. Sampson Low, 1883.)
[31] Brit. Med. Jour., Sept. 15th, 1881, p. 510.

should be to minimise this danger as much as possible; and the first point which I would urge is the necessity of being constantly on guard against an insidious attack of endocarditis or pericarditis. I have shown how it may accompany the slightest articular affection; may even arise without accompanying arthritis of any kind, associated with a chorea, or an exudative erythema, or an eruption of subcutaneous nodules; or it may arise apart from any known rheumatic phase, with an indeterminate febrile attack of apparent insignificance. It is essential, then, to examine the heart carefully in every case of the slightest articular affection—even a stiff neck or a stiff knee; and in chorea, in tonsillitis, in erythema, in an evolution of nodules, and, indeed, in every pyrexial condition of every form. Whenever there is suspicion of rheumatic inflammation—even if no cardiac affection be perceptible—enforce absolute rest in bed. Complete physical repose and external warmth are of the first, possibly of vital, importance. Cases of slight rheumatism are, as a rule, treated far too lightly by both parents and doctors. What a vast difference it would have made in the future condition of the schoolboy, H. G——, for instance, if, instead of being allowed to follow athletic sports, and thus strain his heart's muscle and court fresh chill, he had been kept secure in rest and warmth. Dr. Sibson found that a much larger proportion of cases—more than two to one—treated by absolute rest escaped permanent heart mischief than those allowed free action.

With regard to drugs, I may point out that the heroic treatment by large and repeated doses of salicylate of soda is rarely called for in the rheumatism of children, since the articular affection is usually slight, and the pyrexia as a rule not severe; for the salicylates appear to exert no favourable influence upon any rheumatic phase, except only arthritis and tonsillitis. Salicin may be given in place of salicylate of soda in most articular cases with advantage, as being less depressant—and with the salicin, alkalies. The general evidence of the statistics of the Collective Investigation Committee supports the conclusions of Dr. Fuller and Dr. Dickinson, that cardiac inflammation is less frequent and pronounced under their influence than under any other form of treatment. It would be interesting to note how full treatment by alkalies affects the development and duration of subcutaneous nodules, a point not yet ascertained.

It remains only, Mr. President and gentlemen, for me to thank you cordially for the great honour you have done me in inviting me to deliver this course of lectures, and to thank my audience for their kind and indulgent attention to what I have laid before them.

ABSTRACT OF

The Lumleian Lectures

ON

ENTERIC FEVER.

Delivered at the Royal College of Physicians, April, 1889,

BY JOHN HARLEY, M.D.,

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LECTURE III.

AT the close of my last lecture I was endeavouring to ascertain the influence of putrid emanations upon the blood. The question is an important one in reference to enteric fever, in the causation of which sewer gas plays so decided a part. In ordinary cases the intoxication is a slow one, increasing under the prevalence of the cause from day to day, until a point is reached when the health becomes notably impaired. But in the case of a person who, in superintending the opening of a blocked drain or cesspool, is overcome by the stench, goes home, sickens, and dies, we witness the effects of a rapid and acute intoxication. We have no evidence that these putrid odours float free in the blood, and it is therefore highly probable that they are locked up in the hæmoglobin during their transit, and possibly do no more harm than what results from a depreciation of vitality proportionate to the displacement of the oxygen. In the case of post-mortem odour, we have evidence of a protective influence in the body in the liberation of the gas unchanged, this act probably taking place in the liver; but in the case of the more profound intoxications to which I have referred, it would appear that the displacement of the putrid gas does not occur, or that it is delayed and imperfect, and perhaps that in the process of liberation it aggravates the mischief which its displacement of the oxygen had previously engendered.

Milk is often credited, and I believe rightly so, with the production of enteric fever. There is no fluid more liable to putrefactive changes, and when these have commenced it is a dangerous food; but even when fresh it may be productive of mischief, owing to some derangement in the health of the cow; certainly none but savages should take it raw. Raw flesh is better, for this undergoes disintegration and alteration by the gastric juice; but milk which is already digested and prepared for absorption passes by osmotic action, unchanged, through the mucous membrane, and for this reason it is, if uncooked, liable at any time to become a danger. Our modern physiologists, indeed, teach us the contrary—viz., that gastric juice precipitates the casein and converts it into peptone, but this is monstrous; the old women know better, and what troubles arise when casein becomes clotted in the infant's stomach. Milk in any quantity should be taken upon an empty stomach; for if solid proteids be present the provision of nature is frustrated, and it is only by an expenditure of nerve power that it is again rendered fit for absorption.

Returning again to the relationship existing between enteric fever and simple diarrhœa and dysentery, we find the following statements in the records of these disorders, as given in the history of the war of the Rebellion. First, as to the conditions under which diarrhœa arose, it was noted after exposure to cold and inclement weather, particularly after marches during which the troops were insufficiently sheltered at night, and those who were unprovided with flannel under-garments appeared most liable to the disease. Regiments encamped in tents in healthy localities appear to have suffered, as well as those in which the men were huddled together in ill-ventilated temporary quarters; and the mortality was highest amongst the coloured troops, who had suffered much from privation. Under such circumstances, diarrhœa and dysentery occurred along with cases of bronchitis or even of pneumonia, these associated disorders being evidently the direct consequence of chills, often aided by exhaustion. The action of the skin is suddenly checked, blood is driven inwards, and a morbid action is vicariously established, the congested mucous membrane relieving itself by a simple acute diarrhœa. The process is purely a physiological one, contagion and germs being out of the question. If the function of the skin be restored, a minimum amount of harm will be done. If not, the diarrhœa becomes chronic, and excessive action leads to irritation, irritation to inflammation, inflammation to ulceration. The parenchymatous organs, notably the liver and lungs, share in the struggle from first to last, and are always more or less involved.

In reference to what I have stated at the outset as to the effect of a given variation of the external conditions upon similar constitutions, a noteworthy fact observed during the Civil War was the tendency of the cases of acute diarrhœa occurring in any particular command at a given time to present a number of phenomena in common, resembling each other in the grade of the attack, the constitutional condition of the patients, and the concomitant complications. The character of the diarrhœa prevailing at a given time in a body of troops was frequently modified by the simultaneous prevalence of certain other affections. Thus dysentery occurred with every outbreak, the ratio of the cases increasing and diminishing, as a rule, with that of acute diarrhœa. The simultaneous prevalence also of diarrhœa with intermittent or remittent fevers is indicated in a number of the reports, the fever and flux frequently coexisting in the same individual, the pyrexia sometimes preceding and sometimes following the initiation of the bowel affection. The coexistence of diarrhœa and continued fever was also noted. The majority of the cases of acute diarrhœa terminated in recovery in the course of a few days; but in some cases the diarrhœa passed into dysentery, or fever set in, and assumed a quotidian, tertian, or continued type. The latter cases, associated with tympanites

and tenderness in the right iliac region, "produced in some instances a misleading resemblance to ordinary typhoid fever." In fatal cases there were abdominal distension, frequent involuntary stools, sometimes delirium, though more often the mind remained clear; pneumonia and peritonitis occurred as complications. In a considerable number of cases, after the subsidence of the fever the diarrhœa became chronic. Turning to the necropsies, in some cases a reddish patchy discolouration of the mucous membrane was found, varying from a few inches to several feet, common in the ileum, but more frequent in the cæcum and sigmoid flexure; in these patches the solitary follicles were more or less enlarged, and in the more severe chronic cases ulceration was commonly found. The rapidity with which ulceration of the intestines developed varied with the intensity of the disease, and the lesions differed in no essential degree from those observed in mild cases of dysentery; moreover, the inflammation of the mucous membrane of both large and small intestines between the thickened patches of Peyer, which is of constant occurrence in enteric fever, differed anatomically in nothing from the inflammation observed in acute diarrhœa. The distinction between diarrhœa and dysentery is so purely artificial that in the living subject the latter is distinguished only by the occurrence of tenesmus, the result merely of the implication of the rectum in the general enteritis; and the post-mortem appearances afford no other distinction, a review of 800 necropsies of acute and chronic diarrhœa and dysentery completely substantiating this conclusion. In 239 of these I find intestinal ulceration such as occurs in enteric fever, in 65 the small and large gut being equally affected, in 47 the small intestine more gravely than the large, and in the remaining 127 the large most severely. From a careful consideration of the origin, progress, and termination of acute diarrhœa, I am forced to the conclusion that the origin, progress, and termination of enteric fever is coincident and identical with, and therefore indistinguishable from it; and the dysentery is but a slight modification or variation, sometimes one, sometimes the other, of the more or less general enteritis which is described as acute and chronic diarrhœa and enteric fever.

I pass now to a brief consideration of the connexion between scarlet and enteric fevers. In an article on the "Pathology of Scarlet Fever," published in the fifty-fifth volume of the Medico-Chirurgical Transactions, I have fully traced the relationship which exists between scarlet and enteric fevers, and have shown that the morbid anatomy of scarlet fever, as far as the abdominal organs are concerned, is that of the early stage of enteric fever, and, as might be expected from such a close relationship, that enteric fever is often the direct sequel of scarlet fever. I regarded, and still regard, scarlatina and enteric fever as essentially lymphatic fevers, the former affecting the upper portion of the lymphatics of the alimentary canal and the skin, the latter the lower portion of this system and the skin in a much less degree; and I went so far as to call enteric fever "abdominal scarlatina." Occasionally, either at the onset of the disease or at some period of its course, the whole of the lymphatics of the alimentary canal and the skin are simultaneously involved, and in such a case we have a confluence or intercurrence of these two diseases. A little consideration will show that if in a given case the whole of the lymphatics were simultaneously involved, evidence of this would be early declared in the condition of the fauces and skin; while the implication of the intestinal glandulæ would not be apparent until a variable, and often a very considerable, time afterwards. I have met with a case which was an illustration of this fact, and which furnished at the same time evidence of the common origin of scarlet and enteric fevers. Again, sore throat is a frequent accompaniment of the onset of enteric fever; it is not often recorded clinically, for at the time that most cases come under observation it is forgotten; nevertheless, I find that in twenty-three of my own cases sore throat was among the most prominent of the early symptoms, and in ten others there was purulent discharge from one or both ears. If I have succeeded in proving that enteric fever has the affinities for which I have contended, I shall be satisfied; a proper classification in which this is recognised is sure to follow.

With regard to the treatment of enteric fever, many of us stand aside expecting, and do no more than strike at the head of this hydra if it should happen to be protruded, not presuming to attack the monster himself. Such a practical denial of our ability to cope with the disease is unbecoming, for it is not warranted by the circumstances. Our first efforts should be directed to the restoration of the functions of the skin, and, as thirst is often present, we may give the sudorific in such a form as to assuage this; for example, fifty grains of citrate of ammonia with twenty minims of compound spirit of ammonia, either in plain water or in the effervescent form, with twenty grains of bicarbonate of soda and a tablespoonful or two of lemon-juice, given every three or four hours. But the most hopeful means of arousing the action of the skin is the application of large hot linseed poultices to the trunk, especially to the abdomen. They may be kept continuously applied to this part of the body, and at the same time applied alternately to the back and front of the chest, where they are very often required for the relief of pulmonary complications. This is better than the application of moist heat to the whole of the cutaneous surface simultaneously, which in cases with renal congestion is not without danger.

Physiological facts appear to be disregarded in the use both of the hot and cold bath in enteric fever. The effects of bathing, either warm or cold, are firstly to increase the internal heat, and secondly to increase the congestion of the vessels by the imbibition of water. In enteric fever the sudoriparous and respiratory functions of the skin are already diminished or abolished; the production of heat goes on very actively and mainly at the expense of the tissues; and it appears that the only outlets are by radiation and the excreta, including exhalation from the lungs. We may assume that immersion, owing to abeyance of sudoriparous action, does not increase the internal heat; but there cannot be a doubt that it increases the internal congestion, both by the influx of water through the now hygroscopic skin and by the constriction of the cutaneous bloodvessels: the effect of this upon the already severely congested lungs and intestines is enough to make a physiologist shudder at the bare idea. To treat a poor patient thus is verily to give him "a hair of the dog that bit him." In treating of the topic of cold bathing in his Croonian Lectures, Dr. Cayley adduced the practice of Dr. Brand of Stettin as being the most favourable. Dr. Brand collected 8141 cases which had been treated antipyretically, with a mortality of only 7·4 per cent. He treated 121 cases in the military lazarette at Stettin, with a mortality of 5, or a percentage of only 4; while in private he treated 211 cases in succession, without a single death. Dr. Cayley will forgive me, I hope, when I say that I think there is a fallacy underlying the evidence adduced; for, of these cases, the private ones at least were placed under the antipyretic treatment from the very commencement of the disease, when the diagnosis from "febricula" must have been extremely difficult. Generally speaking, recovery will always bear some proportion to the time when the patient first came under medical care. Thus, turning to my own cases, I find—

	Cases admitted.	Deaths.	Per cent.
Within the first week	72	2 equal to	2·7
,, second ,, ...	87	9 ,,	10·34
,, third ,, ...	42	9 ,,	21·4
,, fourth ,, ...	6	2 ,,	33·0
,, fifth ,, ...	18	1 ,,	6·0
Between the fifth and twelfth ,, ...	7	3 ,,	43·0
Total	232	26	11·2

These rates of mortality compare very favourably with the experience of those who have employed the cold bath in the treatment of enteric fever in this country. Thus, of Dr. Ord's 23 cases, 6 died, or 26 per cent. Of Dr. Cayley's 130 cases (44 fully, and 86 partially, treated by this method), 18, or 13·8 per cent., died. Of Dr. Coupland's 56 cases, 5 died, or 8·9 per cent. In reference, then, to the cold-bath treatment, I find physiological principles are against the practice, and that the statistics give in no case positive sanction, while in one the results are prohibitory. The advocates of the apyrexial treatment seem to imply that a temperature of 104° F. is a dangerous one; but I find that, among my successful cases, 125, or more than half, had a temperature of 104° F. and upwards.

I have found the moderate use of alcohol in the most severe cases beneficial. I believe that, as a part of its general stimulant action, it tends to excite perspiration, and I have prescribed it with this view as an adjuvant to our diaphoretic medicines. We are apt to give it too freely, forgetting sometimes that the patients for whom we prescribe are unaccustomed to its use. For these I think two ounces in the twenty-four hours is usually sufficient. Using it as a

sudorific, I believe we should often defeat our object by giving it in large quantities.

In order to stimulate the failing hepatic power, and at the same time to introduce some remedy into the intestinal canal which may prevent the putrid decomposition of its contents, I adopted the following formula many years ago, and have regularly employed it since in cases of positively declared enteric fever, as well as in those of doubtful diagnosis: Pulveris ipecacuanhæ compositæ, 1½ gr. to 10 gr.; hydrargyri cum cretâ, 2 gr.; fiat pulvis; nocte maneque sumenda. Though I advocate the use of mercury in this form, I do not lose sight of the fact that the opium is, on the whole, the much more valuable drug in enteric fever. I give the combination from the earliest to the latest stage of the disease, irrespective of complications, excepting perhaps vomiting. The average time during which it was administered in 156 cases was nineteen days and a half; and mercurialism was induced in a very small proportion, less than 4 per cent., and in these it subsided in the course of a week. The effect of the treatment is to evoke an earlier reappearance of the bile than occurs in cases not so treated. The mortality amongst the 156 cases treated in this manner was 16, or 10·2 per cent. Constipation, which is as often present as diarrhœa, is best combated by giving a simple enema every second or third day, and sometimes by the use of a small dose of castor oil. When diarrhœa is at all severe, I wash out the lower bowel with warm water containing 1 per cent. of carbolic acid. A pint or more injected slowly in all cases but those of ulceration of the colon corrects putridity and gives great relief. A soft linseed poultice applied firmly to the abdomen by means of a flannel roller effectually relieves the local inflammation, and prevents the formation of tympanites. For great diurnal variations of temperature and for high degrees I prescribe quinine in doses of not more than ten or fifteen grains.

RUPTURE OF THE POPLITEAL ARTERY; SUCCESSFUL TRANSFUSION.[1]

BY A. R. ANDERSON, F.R.C.S.

L. H——, aged fifteen, was admitted into the Nottingham General Hospital on June 30th, 1888, suffering from a swelling above and around the knee. He stated that a month previously he had his right knee crushed between two colliery trams. Directly afterwards the parts about the knee became painful and much swollen, and he was unable to walk or to move the limb. He was attended at home for four weeks, and then came to the hospital. On admission, the lower third of the thigh was much swollen, the skin tense and slightly œdematous, and on the inner side was a circumscribed red patch where the integument was distinctly thinner, as though an abscess were pointing there. The part was distinctly hot. There was slight œdema of the leg and foot. There was an evident fluctuation over the inflamed spot in the thigh. Pain was great and movement of the knee impossible, although it was evident that the joint itself was not implicated. He lay with the limb flexed and on its outer side. For two days the boy was treated with hot fomentations, and then an incision was made on the inner side over the red patch, and some turbid serum and blood-clot escaped, but no actual pus. A counter-opening was made on the other side and a drainage-tube inserted; this was on July 2nd. The wounds were dressed antiseptically daily, and some further broken-up blood-clot came away, but nothing of note occurred. On July 10th, without any warning, a very violent hæmorrhage took place. The bed was soaked with arterial blood; the boy blanched and gasping for breath. Jactitation was well marked. There was a death-like pallor; skin cold and sweating. He was almost pulseless—indeed, it was only in the larger vessels that it could be felt; it could not be made out in the radials. The femoral was instantly compressed, and a Petit's tourniquet applied; ether was injected under the skin, and brandy given, but with scarcely any effect. The boy appeared to be sinking, and was to all appearance moribund. The opposite femoral and both brachials were temporarily compressed, in order the better to supply the heart and brain with what blood remained in his body. He showed no signs of rallying, however, under this treatment, the heart's action being tumultuous, irregular, and intermittent, and it became apparent to all that unless something was done promptly he would soon be beyond the reach of surgical aid. Transfusion was the only method of treatment which held out any prospect of success, and, as there was no proper apparatus at hand for the purpose, I operated in this way: A small cannula from a pocket trocar was attached to an indiarubber tube, and to the other end of the tube a glass funnel. The solution used was two grains of chloride of sodium to the ounce of warm water (temperature 100°), and eighteen ounces of this was allowed to flow into the median basilic vein, with marvellous and immediate effect. The action of the heart became stronger, quieter, and more regular, the jactitation ceased, and the pulse, which had previously been imperceptible at the wrist, became restored. Within two hours he sat up in bed and asked for his tea. The tourniquet was kept loosely applied over the femoral, and the part carefully watched during the night for further bleeding. None occurred, and the next morning he had rallied so far as to make a deliberate operation practicable. Mr. Wright, senior surgeon to the hospital, enlarged the wound on the inner side of the thigh, exposing a cavity reaching behind the femur, and containing débris of blood-clot &c., and at the bottom lay the popliteal artery, which was found partially ruptured, and from this the hæmorrhage had evidently proceeded. A ligature was placed on both sides of the wounded spot, the cavity well cleansed out, a drainage-tube inserted, and the wound closed. There was but little blood lost at the operation; the patient, however, again passed into an alarming state of pallor and pulselessness at the wrist, preceded by irregular, tumultuous cardiac beating, and restlessness. Seeing that death was again impending, with the consent of those present I introduced twelve ounces of the same solution into the median basilic vein of the other arm, with marked benefit as before. On July 13th, two days later, the wound was dressed and he had rallied fairly well. From this time improvement took place daily. At the end of a week he was put on a course of iron. No further hæmorrhage occurred, the wound healed without interruption, and he was discharged cured on Sept. 1st.

Although rupture of the popliteal artery from violence without external wound is an uncommon accident, still this vessel is more commonly so injured than, I believe, any other in the body, the axillary ranking next in this respect. There are various anatomical conditions which doubtless account for this, and which need not be entered into here; but I would remark that, with the knee fully extended, the vessel is in a state of tension, and is perhaps specially tense at those points where its branches are given off. In speaking of the rupture of arteries generally from violence, writers have from time to time noticed the fact that the lesion occurs, as a rule, close to the giving off of some branch. In this case the rupture occurred just at the origin of the superior internal articular artery, which had itself given way at a spot about an inch from its origin, and was found lying torn at the bottom of the wound. The symptoms of this accident are, of course, well known. In *complete* rupture the nature of the case would be clearly indicated by the sudden and great swelling of the popliteal space, the absence (as a rule) of pulsation in this swelling, the coldness of the limb, and complete cessation of pulsation in the vessels below. In *partial* rupture, more commonly than not the swelling in the ham pulsates; some pulsation can also be felt in the tibials, and there is but little lowering of temperature in the limb.

Now, in considering the symptoms observed in this case, the interesting question arises, Could rupture of the popliteal artery, whether partial or complete, have been diagnosed at the time of the patient's admission into hospital? He arrived there a month after the injury, and one was confronted by the following signs: (1) Swelling of the whole limb round the lower third of the femur, most marked on the front and inner side of the thigh; (2) redness and thinning of the skin in that situation, with a distinct sense of fluctuation; (3) absence of pulsation in the swelling; (4) practically no interference with the circulation in the leg and foot, which were warm and natural in appearance, with the exception of a slight œdema, which might have been easily accounted for by the inflammatory centre in the thigh; and (5) there was pyrexia. Considering the age of

[1] A short abstract of this paper was printed in our impression of April 13th.—ED. L.

the youth, the situation and character of the swelling, and the history of the case, the opinion was formed that it was one of a limited acute periostitis with localised abscess, such as is known sometimes to occur. This turned out to be incorrect; but, considering the vague and misleading signs that presented themselves on examination, it is doubtful whether a correct diagnosis could have been made at this stage. When the incision was made into the swelling, shortly after the patient's admission, and it was found to contain nothing but turbid serum and some dark blood-clot, suspicions were naturally aroused, but nothing definite could be arrived at beyond the fact that there had been an extravasation of blood into the limb, lying chiefly behind the femur, and that what little blood flowed was dark and venous in character. And it may here be remarked, in passing, that, in cases presenting clear signs of lesion of a bloodvessel in the popliteal space following injury, it is almost certain to be the artery which has given way, and not the vein. Whilst injury to the artery without implication of the vein is the rule, especially in incomplete rupture, no record of any case in which the vein alone suffered can be found in the English medical journals for the last thirty years—an immunity which may perhaps be explained by reference to its anatomy.

With respect to the treatment of this accident, the most satisfactory method appears to be that of cutting down on and tying the ends of the ruptured vessel, in both the incomplete form and also when complete, if the case be seen before gangrene has become inevitable. It is true that distinguished surgeons have occasionally, but I think very rarely, failed to find the ends of the vessel amid the mass of blood and débris.[2] But in favour of this operation it may be said—(1) that it places the patient in the safest condition possible as far as the risk of any recurrence of the hæmorrhage is concerned; (2) that by early clearing out of the masses of clot &c. from the popliteal space a potent factor in the production of gangrene is removed—namely, the pressure on the collateral circulation; and (3) that, if gangrene should unfortunately ensue, amputation can easily be performed, with a scarcely diminished prospect of success. In partial rupture ligature of the femoral has been advocated. But the objection to the operation appears to lie in this, that if with an enfeebled circulation in the limb, such as must be present with a partially ruptured popliteal artery, the femoral is ligatured, the risk of gangrene would surely be as great or greater than if the vessel were cut down on and tied. And, as a matter of fact, out of eight recorded cases in which this operation was performed for partial rupture, gangrene of the limb ensued in six. And, again, if after ligature of the femoral the collateral circulation became sufficiently established to ensure the vitality of the limb, there would be every probability of further leakage from the injured vessel. In conclusion, I would draw attention to the simple method by which the intra-venous saline solution was injected, and to the very gratifying result obtained therefrom; and also to the fact that on leaving the hospital the boy seemed none the worse for the substitution of a pint and a half of salt and water for the arterial blood lost.

Nottingham.

ABDOMINAL ANEURYSM TREATED BY TUFNELL'S METHOD AND IODIDE OF POTASSIUM; RECOVERY.

BY JOHN ROSS, M.B.

IN the beginning of June, 1888, I saw Mrs. S——, aged twenty-one. She complained of a lump, pain, and throbbing in the epigastrium. The pain was not acute, but dragging, and of an oppressive nature. She did not think much of these symptoms, and was doing her usual household duties in the ordinary way. Her health was otherwise good. The above symptoms had been gradually coming on for the previous six months; they began shortly after or about the time she was nursing her husband, a big, heavy man, who had been suffering from pleurisy and was laid up for two months. During this period she was the sole attendant, and had to move him in bed every time he required it. She was a fairly built, small woman, well nourished, but spare and wiry. On examination I found a distinct elastic pulsating tumour in the middle line of the epigastrium, the upper part slightly overlapped by the ensiform process. The tumour was about three inches in length, and of the circumference of an ordinary-sized orange. There was no difficulty in getting the hand over and partly round the tumour, as the abdominal walls were thin and flaccid. This was especially easy after the first two days of treatment. When the hand was so placed, distinct pulsatile expansion was experienced. On auscultation a systolic murmur was audible over the tumour. There was slight pain on pressure, especially at a spot on the left side of the tumour. The previous history was good; she had never had any illness that confined her to bed for a day that she could remember. There were no signs or history of syphilis.

The management of the case presented a difficulty. Her husband (a mason) was away working in Natal, she had no relatives in the town, and there was only one person, a woman, whom she knew at all intimately. She did not consider that there was much the matter with herself, and thought that a little medicine would be sufficient to make her well. She was naturally sprightly and industrious. Under these circumstances I had some misgivings about telling her suddenly of the seriousness of her case, but told her that she would have to keep in bed for some weeks. She was much surprised at the treatment proposed, and seemed to think I was treating the matter too seriously. It was therefore difficult to persuade her to submit to treatment, and when she yielded it was in a doubting, half-hearted manner. I mention all this because I think that under better conditions the treatment would have proved beneficial in a shorter period, and to show that even in adverse circumstances there is good reason to persevere. The treatment was absolute rest; Tufnell's diet; iodide of potassium (fifteen grains) and tincture of aconite (five minims) thrice daily; and the bowels to be attended to.

A week after the treatment was begun the pain was much relieved, and the tumour was decidedly firmer. A fortnight later, on calling unexpectedly, I found the patient sitting up in bed with her child beside her; she had no doubt been lifting it. I found no further improvement in the symptoms. Her friend, who was in at the time, then said there was no use deceiving me, and that the treatment was not being carried out as directed, as far as the absolute rest was concerned. I then determined to tell the patient the very serious nature of her illness, and told her that if she was not very careful she might die at any moment. After this I have no doubt that the treatment was carried out fairly well. A week afterwards the tumour was quite hard, and the expansile pulsation had disappeared, as had also the systolic murmur; but there remained a pulsation like that of the radial pulse down the median line of the tumour, as well as a pulsating spot on the left side of the tumour. This was the state of things when I left the colony two months afterwards.

On Dec. 30th Dr. Savage, whom I left in charge of the case, wrote: "A fortnight back I saw Mrs. S—— and found everything normal; no swelling or tumour, and no pulsation. I did not vary the treatment, except once when the pulse got irregular, and I then gave her a little digitalis. She had been up for six weeks. She does not exert herself." A fortnight later he wrote: "I cannot tell you how Mrs. S—— is, as she has gone to East London,"[1] from which I concluded that she was still well.

On April 25th, 1889, I received the following concerning the case of this patient from Dr. Savage: "Mrs. S—— has gone to Natal. I got her to see Dr. Mackenzie, of Durban, who thinks she has entirely recovered." This is dated March 31st, 1889. Natal is 350 miles from King William's Town, and the sea voyage to it is a very rough one, and entails the crossing of two of the worst bars on the South African coast. I think that this test by an exceptionally rough passage is about as severe a legitimate test as any case of the nature could have been put to. I am sure that those who know anything of the voyage, even under the most favourable circumstances, will agree with me.

I think this case well illustrates what the above treatment can do, if only sufficient patience be exercised. The patient was in bed from the beginning of June until the end of October (five months).

King William's Town, Cape Colony.

[2] Poland: Guy's Hospital Reports, vol. vi., 1860.

[1] About forty miles from King William's Town.

A CASE OF

SEPTIC POST-PARTUM FEVER WITHOUT IMPORTANT LESIONS.

BY R. LEIGH, M.R.C.S. &c.,
LATE DISTRICT MEDICAL OFFICER TO THE LYING-IN HOSPITAL, LIVERPOOL.

C. J——, aged thirty-four, multipara, of good general health, was attacked by fever, with stoppage of the lochial discharge, two weeks after an easy normal labour. She had been sitting up several days, having convalesced in a most satisfactory way until the onset of the fever. This continued without any other symptom, and was unaffected by a mixture containing acetate of ammonia and aconite. The bowels were costive, but were regulated by injections; there was also flatulent distension of the abdomen, but no pain or tenderness, or sign of inflammation or any other lesion. The fever gradually increased until the eighth day of the illness. The temperature reached 104·5°, the pulse being 125. Antipyrin was then administered in ten-grain doses every four hours. The night following there was free perspiration, and in the morning the temperature had fallen to 100°, and by the eleventh day the temperature was slightly subnormal. In spite of this the pulse was 110, and she had passed a restless night. The antipyrin was discontinued, and acetate of ammonia was given with digitalis. Profuse sweating occurred again on the nights of the eleventh and twelfth days. On the latter the breathing was rather quicker, and on the morning of the thirteenth was thirty respirations to the minute, the pulse being 130, though at 10 P.M. it sank to 110. There appeared at this time a dusky erythematous rash, spreading from the anus as a centre. The temperature had steadily and rapidly risen since the stoppage of the antipyrin, and was now 103·5°; therefore the antipyrin was begun again, and given alternately with the mixture last mentioned. On the fourteenth day the respirations were 50 and the pulse 140, and the temperature had reached 104°. Dr. Burton saw her with me on this day, and the abdomen was carefully examined, but no swelling or any apparent cause for the fever was found, the utero-vaginal secretion being normal. There was no pulmonary disease. An ointment of ichthyol was ordered for the rash, which soon disappeared, and the antipyrin was continued regularly. Next day the respirations were 40, pulse 120, and temperature 101·5°, going down further to 98·5° on the seventeenth day. Urine non-albuminous. The antipyrin was again stopped, and again the temperature rose till it reached 101·5°, when the antipyrin was begun again. After reaching 102·7° the next day, it fell on the twenty-second day to 98·7°. On the twenty-third, while still taking the antipyrin, but only three times a day, the temperature reached its highest point, 105·3°. The antipyrin was then given every four hours, and the temperature gradually fell to 99·5° on the twenty-fifth day. All this time the pulse and respiration continued frequent, and there was often heavy perspiration. The symptoms of the case, without local inflammation, pointed to some septic infection from without. The drains had been examined at an early period in the case, and found in order. The only apparent possible cause was the business of the shop below the bedroom. This and the back room—the whole of the ground floor—was used in the business of a pork butcher. There was no offensiveness, but there was grease everywhere, and it filled the air with its odour in spite of ventilation. The removal of the patient was therefore urged, notwithstanding her critical state, for the temperature had risen in spite of the regular administration of the antipyrin, and reached 103·5° again on the thirtieth day of the disease. An enlarged inguinal gland appeared on this day, but there was no vulval soreness to account for it. The antipyrin was then discontinued (finally), and the acetate of ammonia again given. The day following, the temperature reached 105°, falling the day after to 99·5°. Next day the temperature rose to 103·4°, notwithstanding which the patient was removed to a private house nearly half a mile away. The following day the temperature had fallen to 100·2°; it flickered between 100° and 101° to the thirty-ninth day, and remained below 100° afterwards. The gland before mentioned gradually became red and suppurated, and a second smaller gland on the pubes also followed the same course, but they interfered little with the progress of the convalescence. The acetate of ammonia was continued to the thirty-sixth day, when citrate of iron and quinine was substituted.

There are three points of great interest in this case. 1. The peculiar septic influence of the business, which sufficed to keep up the fever, which fell at once and permanently on removal from the greasy emanations. 2. The fact that no lesion of importance could be found, though the fever was so great and so long continued. 3. The marked antipyretic influence of the antipyrin at the earlier part of the fever; later its specific effect seemed to be lost, as though the thermic mechanism had become used to it. The temperature was usually observed about 11.15 A.M., and only once a day as a rule. The variations from day to day were very great and sudden, as if from the effect of some special (septic?) cause. Though the number of respirations rose to 50 in the minute, there was never any sign of pneumonia or other disease of the chest, the presence of which would, indeed, be negatived by the rapid and great variation in the temperature. (See accompanying chart.)

Liverpool.

INDICATIONS FOR TREATMENT OF MALIGNANT PUSTULE.

BY S. L. WOOLMER, M.R.C.S.

So much has been written about the treatment of malignant pustule, that it is well to draw attention to the safest and most convenient treatment of all—viz., the actual cautery. As the treatment has for its object the destruction of the pustule and a portion of the surrounding healthy tissue, so is the inefficiency of other methods, excepting the actual cautery, clearly demonstrated in cases where the pustule appears upon or near the trunk. Of the many methods subjected, the injection of pure carbolic acid into the healthy parts around the pustule is perhaps the most popular. This process is in itself extremely painful, and, if the pustule is at all large, necessitates an extreme amount of suffering on the part of the patient, and by no means invariably gives him a corresponding satisfactory result. Other caustics have been tried—as the acid nitrate of mercury and chromic acid,—but with little success.

A process that is employed in this country and which has been attended with considerable result, has been to divide with the knife the pustule down to the healthy tissues in a series of parallel lines, and afterwards in a similar manner transversely. Into these incisions powdered bichloride of mercury is well rubbed. This method I have tried in two cases, but I cannot say to my satisfaction. In both cases

the pustule was very large and of some days' duration, and in both cases the actual cautery was the successful remedial agent.

The application of Paquelin's cautery to these pustules does not seem to be very painful. It is of course necessary to cauterise the adjacent parts, but the pustule itself in very many instances seems perfectly anæsthetic. If the pustule is small, an injection of half a grain of hydrochlorate of cocaine beneath the pustule will enable one to cauterise without the patient experiencing any pain. When the pustule has attained any size, it is better to administer an anæsthetic. It is very necessary to burn thoroughly the whole pustule and some half centimetre around it. I have seen many cases where it has been necessary to repeat the cauterisation in two or three days, at much risk and inconvenience to the patient.

The site of the pustule and the extent to which the glands are implicated naturally offer a good indication for the necessity of energetic treatment or otherwise. In the case of a small pustule on one of the fingers, with perhaps no infarcts except in the little gland situated above the internal condyle of the arm, it is only required to burn the pustule thoroughly; and on the third day, provided there be no infarcts of increased size, and the margin of the burn shows no indications of the development of the pustule, the patient may be considered out of danger.

In some cases the pustule itself seems to develop, with very little apparent generalisation of the disease; whilst in others, on the contrary, at the end of a week the pustule may measure less than a centimetre in diameter, and yet in the axilla there may be found infarcted glands the size of a fist. These latter cases are very insidious, and require most energetic measures. On account of the small size of the pustule the patient may be liable to under-estimate its importance, and attribute his ill health (due to the intoxication by the poison) to other sources. In two such cases, one patient imagined he was the subject of a broken chilblain, and another that a wart had suddenly developed itself. In these cases it is necessary to burn thoroughly the pustule and to lay open the axilla and remove all the affected glands. When the pustule has developed itself to a great extent, there does not seem to be so much urgency. Certain it is that the whole system finally becomes intoxicated, but the process takes place much slower.

Pustules upon the face and trunk require immediate measures. In these cases it is very notable that if the cautery be inefficiently applied, the growth of the pustule seems to be greatly accelerated. In a case under my care a short while ago, a man had a small pustule at the external angular process of the frontal bone. It measured about eight milimetres in diameter. He had noticed it some thirty-six hours, and it had increased in size but little. The actual cautery was applied, and the pustule burnt thoroughly almost to the bone. In twenty-four hours there was considerable swelling over that side of the face and neck, and the pustule had increased to some two centimetres in diameter. The following day the tissues of the face and neck were greatly indurated, and a pustule had appeared upon the upper eyelid. This was treated in the same way, to be followed on the next day by another on the lower lid. In this way did it progress until seven distinct pustules had appeared, and he had been cauterised seven distinct times. Then his condition began to improve, and although the cheek is rather brawny, and the eyelids will require some plastic operations, he is otherwise in good health.

As the diagnosis of a pustule in its early stage is not always easy, especially when the microscope has given negative evidence, it is assuring to know that the enlargement of the little gland situated above the internal condyle will often give the first clue of its malignancy. This gland is rarely enlarged above the size of a pea. The other day I saw a case (although clearly not malignant pustule, probably allied to it, and designated here by the native as "maucha," a "stain"—a name, in fact, applied popularly to any conspicuous skin lesion), in which the gland had attained the size of three centimetres by two. The "pustule" had more the appearance of a large wart, and as, according to the patient, the axillary glands had been enlarged, but had at a later period spontaneously diminished in size, I burnt thoroughly the pustule, and, in view of the history, sent him home. In four days' time the gland above the internal condyle had diminished to the size of a small bean.

In conclusion, I maintain that the actual cautery forms the safest and most convenient remedy, as producing less pain and suffering, and as being more efficient to reach the diseased tissues. Out of forty cases in the recent epidemic in this neighbourhood, the mortality was only one, being a case which was not seen till the tenth day, and in which great generalisation had existed from the first.

Salto Argentino, Province of Buenos Ayres.

A CASE OF

ACUTE LEAD POISONING WITH RESPIRATORY PARALYSIS; RAPID RECOVERY.

BY F. ROWLAND HUMPHREYS, L.R.C.P. LOND.

GEORGE G——, aged twenty-seven, pianoforte-maker, sent for me, and was first seen at 11.20 P.M. on Sunday, Nov. 25th, 1888. He complained of pain in the abdomen and inability to breathe. He said that at 6 P.M., when he had his tea, he was quite well. After it the bowels were moved, and later he had slight pain in the right hypochondriac region. At 8.30, while out walking with his wife, he was seized with very severe pain in the same region, and vomited. He got some brandy, and, being relieved by it, managed to get home, though he could hardly drag his legs along and was in great pain. This pain, still persisting when seen, was described by him as shooting from the immediate neighbourhood of the gall-bladder across the epigastric to the left hypochondriac region, and then turning upwards. This is the patient's own repeated description put into medical terms. His face was very slightly flushed, and he was evidently in great pain; this was of a remittent nature. He was collapsed. The pulse was very weak, slow, 50 or less, and irregular as to volume and force, less so in rhythm. The respirations were extremely hurried, 130 or more, and between the breaths the poor fellow kept complaining of inability to breathe. Inspection of the chest showed that the respiratory movements were entirely confined to the lower ribs on the right front of the chest, where the diaphragm was working hurriedly. The chest was collapsed on the left side, and to a less degree on the right. The left was at the position of complete expiration. On the left side the chest was absolutely dull to percussion, and also on the right, but to a less extent. On auscultating the left chest a distant roaring sound was heard; on the right side bronchial breathing was noted. The præcordium was decidedly hyperæsthetic where the brandy was in the first place injected. The abdomen, at first somewhat resistant, after a moment or two allowed deep pressure. Nothing abnormal was made out. The pupils were normal in their reaction to light, though sluggish. For distance their accommodation was not tested. The conjunctivæ were injected. He complained of pain in the supra-sternal region and in the throat, but there was scarcely any appreciable change in his voice. The palate was in a state of complete relaxation, and there was considerable difficulty in swallowing, not only from the rapid breathing, but also from some paralysis, apparently of the pharyngeal muscles. At first he was unable to hold up his head, though he could move it from side to side on the pillow. The sterno-mastoids and the other muscles of forced respiration in their neighbourhood were absolutely motionless. He could not support his body upright in bed; the arms were unaffected apparently; the legs could be adducted and abducted, at any rate, and the knees flexed on the stomach. The lower extremities were cold. On first entering the room I thought the man was dying, and injected a few minims of brandy into the left pectoralis major. This improved his condition, the pulse becoming full, hard, and quicker. The effect quickly passed off, however. During the next paroxysm of pain he was completely "doubled up," and I injected into the region of the gall-bladder one-sixth of a grain of morphia and one-hundredth of a grain of atropine, after a second injection of brandy. The pain now almost entirely ceased, and before I left him he was able to sit up in bed, and could swallow—that is, about one hour and a half later,—the respirations having sunk to about 100, and the pulse risen to 70. His mind was perfectly clear throughout, and he was able to answer questions, though in gasps. During the paroxysms he did

not appear to hear. There was also a weak infrequent cough.

On the following day (the 26th) he had perfect movement in the respiratory muscles, though the breathing was slow, and there was a little wheezing on the left side. Temperature subnormal.

Nov. 27th.—Respiration 16; pulse 52; temperature 96·6°. Abdominal reflexes nearly absent; tache cerébrale present on the abdomen, and to a less extent on the chest; knee-jerks weak; ankle-clonus present; posterior muscles of the legs rigid.

28th.—The patient tells me he was last week doing lead casting in the course of his employment, and the day before his attack was mixing red and white lead. At tea on the 25th he had shrimps, and it is probable that the action of the finger-tips in picking the shells off worked the lead from under the nails on to the fish, and, thus seasoned, he swallowed them, as he subsequently found lead under the nails. The gums showed the lead line well marked, and there was apparently no other source but the lead under the nails for the poison, as the lead was not touched in the process of casting or afterwards, nor was any other person in the house affected.

The question remains, what was the immediate cause of the paralysis and of its rapid disappearance? Shock alone would not account for it, because the pupils were not dilated, as is always the case, I believe; nor was the cutaneous circulation altered, nor would the small dose of morphia have had such widespread and permanent effect on the sympathetic. The course the pain took was that of the stomach and œsophagus; this indicates implication of the pneumogastric nerve. The symptoms and the result of the treatment confirm this view. To take the last first. The improvement in respiration and pulse can be accounted for if, looking upon the case as one of inhibition of the respiratory centre by the vagus, we remember that atropine injected in even the smallest doses has the power of preventing this inhibitory action of the vagus. Indeed, this was what first gave me a clue to a rational explanation of the observed phenomena. The inhibition was no doubt set up by excessive stimulation of the gastric terminal branches transmitted to the central ending of the nerve by its main trunks, and through the respiratory centre could have caused the slowing of the heart; this was very considerable, if the rate of the breathing is compared with it, the usual proportions being reversed. The temporary paralysis of the palate might be accounted for by regarding it as part of the respiratory system. The known unequal excitability of the branches of the vagus might account for the absence of change in the voice. The continuance of action of the phrenic nerve on the right side can only be accounted for by supposing that the respiratory centre was unequally affected. I forgot to say that soon after the pain ceased the urine was passed; a later sample showed merely excess of phosphates and urea. The amount was slightly in excess of the normal quantity. The bowels were confined on the day following the attack. My remarks are based on the third edition of Landois and Stirling and on Foster's text-books.

Queen's-crescent, N.W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON A POINT OF DIFFERENCE IN THE PATHOLOGY OF GOUTY AND RHEUMATOID ARTHRITIS.

BY E. T. WYNNE, M.B. CANTAB.,
HOUSE PHYSICIAN, ST. BARTHOLOMEW'S HOSPITAL.

THAT both these diseases produce deformities of joints is well known, and the deformities are described as due in the one case to deposition of urates, in the other to changes in the hard tissues of the joint. But there is a change in the bony structures of joints met with in many cases of articular gout which at first sight would seem to bring these two diseases (formerly confounded, now clearly separated) into closer connexion with each other, but which I hope by my description to show really marks a new, and, if my interpretation of the condition is correct, a radical difference between them. This change has been recognised and described before, but its microscopic characters have, I believe, never been carefully investigated. Cornil and Ranvier mention it roughly in their work on Pathology, but their description differs entirely from what I have myself found. The condition is best seen in the knee. On examining such a knee through the skin, the margins of the articular surfaces are felt to be more protuberant than natural; and on opening the joint the articular cartilage appears to have been squeezed out by pressure, so as to produce a "lip" or ridge around the margin. This lipping has a superficial resemblance to the condition seen in early rheumatoid arthritis, often described as a heaping up of the cartilage at the free margin. A closer examination shows radical differences. In rheumatoid arthritis such an outgrowth is found microscopically to consist of cartilage in a state of fibrillation, which may in parts be calcified, but which rarely shows ossification. I have examined microscopic specimens of extreme cases showing ossification; but the outgrowth is found even in the most advanced cases to have a complete investment of cartilage. The outgrowth is therefore a chondroma produced by overgrowth of the articular cartilage. Now, looking at a specimen of gouty arthritis, the opalescent cartilage is seen to stop short at the summit of the outgrowth, and microscopic sections show the same. Such a section taken at the edge of the joint shows the cartilage healthy, except for senile changes, becoming a little thinner at its outer extremity, and terminating at the summit of the protuberance, the rest of the outgrowth being covered with a thin layer of fibrous tissue, continuous with that of the periosteum and synovial membrane. The outgrowth presents the appearance of a sprouting of the cancellous tissue of the epiphysis, carrying the cartilage before it. It is, in short, an exostosis. This condition is met with in joints the seats of uratic deposits, and in those showing erosions of the cartilage (probably formerly the seat of uratic deposits), accompanied by deposition of urates in other joints. I have examined a number of such joints, and have found the condition constant. I have never met with it in rheumatoid arthritis. In explanation of this difference between these two diseases, I would suggest that the outgrowths in rheumatoid arthritis are the result of a dystrophy of the joint—possibly of neurotic origin,—whereas those of articular gout are the result of irritation, either from deposition of urates in the neighbourhood, or more probably from the circulation through the bone of blood containing an abnormal amount of urates. Whether this be the true explanation or not, the fact itself seems of sufficient interest for attention to be called to it.

St. Bartholomew's Hospital.

RUPTURE OF FIBULAR TENDON OF BICEPS FEMORIS.

BY ERNEST F. NEVE, M.D., F.R.C.S.ED.

K. M——, a male, aged about twenty-eight, on June 13th, 1885, whilst running across a field, felt a crack and some pain. He was able to limp home. When I saw him on the 14th, I could find no trace of the fibular tendon of the biceps on the right side. With the leg bent at right angles to the thigh, the posterior aspect of the head of the fibula could be distinctly felt, but the attachment of the tendon was not distinguishable. A slight swelling, painful on pressure, was felt at the postero-external aspect of the lower third of the thigh. Three inches above the upper border of the patella the circumference of the limb was increased by three-quarters of an inch as compared with its fellow. On the 15th a portion of tendon two inches in length, freely mobile, could be felt attached to the fibular head. The injury was treated by moderate flexion. The position was found by the patient to be very irksome. By the 25th the swelling had abated half an inch, and the tendon was beginning to stand out as a ridge; its sheath appeared thickened. On July 8th there was no pain on manipulation, but a slight limp in walking, though the patient could walk a mile without discomfort. From this date the patient improved steadily for a time.

On March 21st, 1888, I had an opportunity of again

examining this patient. The measurements, taken as before, showed now an increase of half an inch in the right limb as compared with the left. The tendon did not stand out in the same relief as on the healthy side. When the muscle was put into action, the tendon could be felt distinctly, but it was nearer the middle line than normal. There was slight but unmistakable weakness on that side in running, and the man seemed inclined to save the right leg somewhat. In swimming, some want of power was complained of; also, after riding, local fatigue was felt.

I have reported this case for the following reasons. Firstly, because the injury is exceedingly rare, and is not especially mentioned in any of the surgical literature to which I have access. Secondly, the final result tends to indicate that a suturing operation might have achieved a more perfect cure. The question of operation was raised within two days of the injury, but was negatived on consultation.

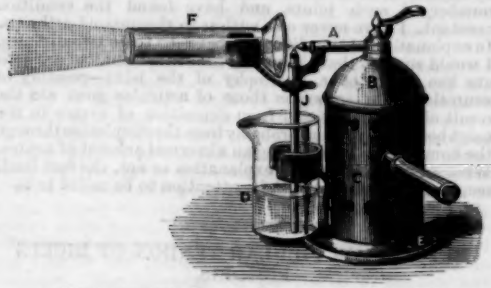
Kashmir.

A NEW TREATMENT OF ACNE.

BY JAMES STARTIN,

SENIOR SURGEON TO THE LONDON SKIN HOSPITAL, CONSULTING SURGEON TO THE SHEFFIELD PUBLIC HOSPITAL FOR SKIN DISEASES.

THE successful treatment of acne—especially acne comedones and acne rosacea—always appears to be of some considerable difficulty. In addition to the ordinary treatment of acne by careful attention to diet, the use of chalybeates and vegetable acids, medicines, and sulphate of lime, and applications of sulphur and zinc, I have recently obtained some very good results in a number of cases by using a vaporiser or steam producer, to which can be added the drug for the purpose of treatment. This process of steaming the skin of the face is not only very beneficial to the complexion itself, but speedily removes impurities and black specks, such as are seen in acne comedones, and the redness of acne rosacea. This handy little instrument or vaporiser consists of a small kettle



A, Vaporiser. B, Boiler. C, Cage. D, Movable glass measure. E, Stand with spirit lamp. F, Glass funnel for more accurate direction of spray. J, Small collar for fixing glass funnel.

set in a framework (B), with a non-conducting handle, over a spirit lamp; the vaporiser (A) projects from the kettle like an ordinary scent vaporiser, the end of which tube is inserted into the glass measure (D) attached to the frame containing the drug required to be used to the skin. The whole apparatus is much the same as the carbolic spray producer now used, only smaller. Its beneficial action consists in its power to assist the functions of the pores and to cleanse the skin of all impurities, and is very similar to the Turkish bath in its effects on the skin generally, and, like it, is delightfully refreshing to the skin. As soon as the steam is produced in the vaporiser, it can be applied at about a foot and a half from the patient, for twenty minutes or half an hour, and the face should then be gently rubbed over with a soft towel. This handy little instrument can be used with benefit also in all diseases that affect the throat, lungs, mouth, ears, and eyes—such as diphtheria, croup, bronchitis, laryngitis, and asthma.[1]

Directions for use.—Screw on the handle; take the little boiler (B) from the cage (C); unscrew the vaporiser (A), fill the boiler with water with the exact quantity contained in the measure (D), and replace it; then lift the cage (C) from the stand, and fill the lamp (E) with spirit; replace the cage; fix on the funnel (F) by pushing its fork into the collar (J), and fill the glass vessel (D) completely with water and two drachms of benzoin tincture or any other drug necessary to suit the case. If a more powerful spray be desired, use the vaporiser without the funnel.

Sackville-street, W.

[1] The apparatus can be obtained at 29, Ludgate-hill.

TRICHINOSIS.

BY DAWSON F. D. TURNER, M.B., C.M., B.A. EDIN.

THE following case may be of interest to some of the readers of THE LANCET.

At a post-mortem examination lately held in the Vienna Krankenhaus upon a man who died of carcinoma of the œsophagus, it was found that his muscles were studded by innumerable white calcareous nodules, which on microscopical examination turned out to be encapsuled trichinæ. With the single exception of the heart, all his muscles seemed to be pretty equally affected. This condition had been quite unsuspected; but it was found, on consulting the patient's previous history, that twenty-six years ago he had suffered from a very severe attack of muscular rheumatism—so severe, indeed, as to keep him for some months in bed. As under the microscope the trichinæ seemed to be in an excellent state of preservation, and even seemed to show some signs of life, it became a matter of much interest to put this to a definite test, and accordingly some rabbits were fed upon the diseased tissue, with the result that when (after the expiry of three weeks) one of them was killed and examined trichinæ were found in numbers in its muscles and intestine. This period—viz., twenty-six years—is believed to be the longest yet recorded in which encapsuled trichinæ have been observed to retain life, and to be capable under suitable circumstances of active propagation. The longest previously recorded case was one of thirteen years, observed by Virchow after the Hamburg epidemic.

Vienna.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

PADDINGTON INFIRMARY.

CASE OF HYSTERIA MINOR AND "OVARIAN PHENOMENA" IN A MALE SUBJECT; REMARKS.

(Under the care of Dr. SAVILL.)

IT is not very uncommon to meet with the "hysterical state" in the male, but it is unusual to see an attack of hysteria in one, at all events in this country. "The subjects are usually boys about the age of puberty or men from thirty-five to fifty years of age, and its causes are excessive venery or masturbation, over-work with long-continued worry and anxiety, violent shock, senile degeneration, and commencing chronic cerebral disease."[1] In the lectures on Nervous Diseases by Dr. Wilks there are cases given in which the following symptoms developed: laryngismus, aphonia, spasms, convulsions, and malleation. Other cases are recorded. The case which Dr. Savill mentions as present in the ward at the time the symptoms came on in the case which we publish below, is that of a hawker, aged twenty-nine, who had had fits for five years. He had persistent contracture, analgesia, and anæsthesia limited to the upper extremity, which had been present for two years and a half. In London hospital practice it is rare to see hysteria developing as the result of injury, although it does undoubtedly occur at times.

Charles G——, aged twenty, who had been a shoeblack

[1] Roberts: Practice of Medicine, p. 888.

and paper-seller, was admitted into the infirmary on Dec. 7th, 1888, for granular lids and irregular action of the heart. The heart appeared normal, and there was (?) no valvular lesion. He was pale and anæmic, but presented no feminine qualities, and the organs of generation were well developed. On April 5th, when he was being prepared for an application of the mitigated nitrate of silver stick, he was taken with a nervous attack. He complained of a ball rising in his throat, and a stifling feeling and pain in his chest. Then he gasped for breath, the limbs became rigid, he assumed the position of opisthotonos, and slid off the chair on which he had been seated. There were no clonic convulsions, but the sighing respiration, rigidity, and other symptoms lasted for several minutes, when, water being thrown in his face, he recovered.

On search being made for other hysterical symptoms no alteration of sensation could be discovered, but there was very marked tenderness in both inguinal regions. The lightest pressure in either groin was resisted by the patient, and produced a recurrence of the above-described "attack" in a much more accentuated degree, accompanied by violent struggling and cries of "Oh! my heart! Oh! oh! oh!" In addition to being thus provoked, it was ascertained that these "attacks" had lately on one or two occasions occurred spontaneously, after a meal; and that the patient was frequently subject to terrifying dreams, out of which he would awake gasping for breath. The field of vision was not tested, because the patient's eyes had been under atropine.

Remarks by Dr. SAVILL.—Instances of this sort of hysterical attack are not frequent in the male subject, and careful inquiry was made with a view to ascertain the cause. Nothing could be discovered in the family history pointing to hereditary predisposition, though it should be borne in mind that the family history of this class is often very deficient, and that it is exceedingly rare to meet with the disease in the male without this kind of predisposition. However, it is quite possible that one or all of three causes were in action in this case. 1. He had begun intercourse with the opposite sex at the early age of sixteen, and had lately had nocturnal emissions. 2. Both of the patient's eyes had been bandaged, and he had been placed in a dark corner of the ward for a period of seven weeks (Feb. 15th to April 5th); and, though he had been subject to occasional "flutterings in the chest" prior to admission, he had only had the severe "attacks" since this treatment had been commenced. It seems to me probable that the introspective state induced by this long absence from the light had some connexion with his hysterical condition. 3. In the same ward as this patient is another, who is an undoubted hystero-epileptic,[1] with whom he has mixed rather freely; and thus the element of contagion or imitation is introduced. Which of these three causes predominated it is difficult to conjecture, but it is probable that they all tended to foster and develop the marked hysterical phenomena exhibited by this patient.

LINCOLN COUNTY HOSPITAL.

TWO CASES OF ACUTE CHOREA TERMINATING FATALLY; REMARKS.

(Under the care of Dr. MITCHINSON.)

CHOREA seldom runs such a rapidly fatal course as it did in the two cases which are described below; in fact, it is by no means a fatal disease. Fagge met with a case in which the patient, a boy of sixteen, died within nine days of the commencement of the attack, and says it seldom happens, even in the most severe forms of chorea, that death occurs within three or four weeks of the beginning of the illness. The combined tables of Manser, Halstead, and the Committee which reported on chorea for the British Medical Association, give a total of 769 cases, with only eighteen deaths. A remarkable feature in these cases is the high temperature in each. In the first, this was present during the whole of the time that she was under observation; such an elevation of temperature is rare unless the disease is complicated. In the second, it followed a more usual course in fatal cases, rising rapidly a few hours before death. In both patients there was well-marked mitral disease found after death, and post-mortem examination usually proves the existence of definite morbid conditions in those fatal cases in which a murmur has been heard during life. Dr. Stephen Mackenzie says that there are cardiac murmurs in 54·26 per cent. Dr. Dickinson gives 42 with murmurs out of 70, and found the heart healthy in 5 out of 22 fatal cases. Fagge says, "It does not appear that endocarditis or pericarditis is directly concerned in bringing about the fatal issue, or, indeed, that its development affects in any way the progress of the disease. The immediate cause of death seems to be the intensity of the nervous symptoms themselves, but the movements often subside, and may even cease entirely during the last few hours, the patient lying comatose and passing evacuations involuntarily." For the following report we are indebted to Mr. W. H. B. Brook, house surgeon.

CASE 1.—Sarah R——, aged twenty-one, unmarried, was admitted on Sept. 3rd, 1888, suffering from extreme chorea. She had had four previous attacks of increasing severity—the first at the age of six years, and the fourth seven months before the present illness, which commenced on Aug. 26th. She had never suffered from acute rheumatism, nor could the disease be accounted for in any way. The catamenia were regular.

On admission the patient presented an example of chorea of the most acute character, the whole body being affected; the patient being very noisy and restless, with elbows and knees chafed by the constant movements. There was a faint systolic murmur heard over the apex. The temperature was 103·2°. She was ordered two grains of sulphate of zinc three times a day, with a draught at night containing cannabis indica and bromide of potassium.

On Sept. 5th the temperature had risen to 104·2°, and the movements were more violent. The sulphate of zinc was discontinued, and fifteen grains of salicylate of soda given every four hours, but without any effect on the temperature. The patient was now fed entirely by nutrient enemata.

Sept. 6th.—She had not slept, and was very wild and restless, with sordes on the lips. The pulse was 144, and the temperature at 6 P.M. 105·4°, and was unaltered by a fifteen-grain dose of antipyrin. A hypodermic injection of a quarter of a grain of morphia was given to subdue the movements, but without effect. At 9 P.M. the temperature had risen to 106·4°; the face was livid, and the movements very violent. The patient was sponged with tepid water, and the movements subdued by chloroform; the temperature, however, still rose, being 107·6° at 9.30; but after a repetition of the sponging it fell, and at 10.30 was reduced to 102·2°, whilst she was sleeping.

7th.—At 12.30 A.M. the movements were very violent, but were subdued by chloroform and a hypodermic injection of a fifth of a grain of morphia, the effect of which only lasted for half an hour, so that the chloroform was repeated at 2 A.M. and 2.30 A.M., at which time the temperature had again risen to 105°, but was reduced by sponging. At 3 A.M. the patient was quiet. At 5.30 A.M. she was continuing quiet; face pale; respirations of unequal depth. Temperature 103·4°; pulse 144; respiration 24. The pulse became almost imperceptible, the extremities blue, and the patient died at 6.20 A.M.

At the post-mortem examination, nine hours after death, the brain was œdematous. The heart presented mitral vegetations. The kidneys and lungs were healthy.

CASE 2.—George L——, aged sixteen, was admitted on Jan. 21st, 1889, suffering from chorea of a well-marked but not excessive character, which had followed an attack of acute rheumatism (the first attack) eight weeks previously. There was an account of an injury to the arm, with shock, shortly before. There was a roughness of the first sound of the heart heard over the apex. He was ordered three minims of liquor arsenicalis three times a day. The ether spray was applied to the whole length of the spine for five minutes twice daily; but as it seemed to increase the movements it was discontinued after the second day.

On Jan. 25th, after having seen some visitors, he was more excited and restless.

Jan. 29th.—Very excitable, shouting and throwing himself about. He was now ordered ten minims of tincture of belladonna and ten grains of bromide of potassium three times a day. In the evening he was more noisy, but slept after a hypodermic injection of a sixth of a grain of morphia.

30th.—At 3 P.M. he was more excitable. A sixth of a grain of morphia was given, without effect. At 5 P.M. chloroform

[1] Report of the Clinical Society, THE LANCET vol. i. 1889, p. 329.

was given, and the movements completely subdued. The temperature was 99°. The patient was kept continuously under the influence of chloroform for forty-eight hours until 5 P.M. on Feb. 1st, inhaling eight ounces during that time, but during the second half of this period chloral hydrate was given in twenty-grain doses every four hours, with the result that much less chloroform was needed to control the movements. Only sufficient chloroform was given at one time to keep him from moving; as the effect of each inhalation passed off slight movements would begin in the feet, when another inhalation was needed. He was fed through the nasal tube every four hours with six ounces of egg and milk and a teaspoonful of brandy. Bladder emptied by catheter.

Feb. 1st.—At 10 A.M. the temperature was 97·8°, from which time it rose steadily, until at 9 P.M. it was 102·6° Pulse 150; respiration 36. At 5 P.M. the chloral and chloroform were discontinued, as the pulse showed signs of failing. The choreic movements returned, but with much diminished intensity. The systolic murmur had greatly increased.

2nd.—The temperature rose steadily, until at 11 A.M. it was 105·2°, and at 4 P.M. 104·2°, being only very slightly reduced by sponging. The pulse and respiration were very weak. At 5 P.M. the temperature had fallen to 99·4°, and at 5.10 the patient died, the pulse becoming imperceptible everal minutes before the breathing ceased. Fifteen minutes after death the temperature had risen to 102° (taken in the rectum).

At the post-mortem examination œdema of the brain and vegetations on the mitral valve were found.

Remarks.—These two cases are of interest as examples of that acute form of chorea occurring about puberty which is not infrequently fatal. In both the inutility of the ordinary treatment was well shown; bromide of potassium produced no quieting effect, and morphia by itself caused more excitement, whilst in each case the movements were subdued immediately by the inhalation of chloroform. In the second case the ether spray applied along the spine, so far from producing a beneficial effect, increased the movements. The continuous inhalation of chloroform was adopted in the hope that by checking the great expenditure of nerve force, whilst the general nutrition was maintained by forcible feeding, the nerve centres might recover their equilibrium. Although this was unsuccessful, in another case it might succeed, especially if a large amount of nourishment were given. The course of the disease and manner of death were strikingly similar in each case. The temperature remained normal until a few hours before death, when it steadily rose—in the one case to 107·6°, and in the other to 105·2°. It was only reduced for a time by sponging, whilst antipyrin had no effect whatever. In each case the high temperature fell suddenly shortly before death.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Cysticercus in Muscle.—Cancer of Fallopian Tube.—Hereditary Albuminuria.—Aneurysmal Varix of Splenic Artery and Vein.—Ulcerative Colitis.—Pressure of Left Auricle on Left Bronchus.—Vesiculation of Vesical Mucous Membrane.—Lumbar Hernia.

AN ordinary meeting of the above Society was held on May 7th, the President, Dr. W. H. Dickinson, in the chair.

Mr. H. B. ROBINSON read a communication on Cysticercus Cellulosæ from Human Muscle. The patient, aged four, came under his care in June, 1888, with a small swelling on the back, which had been present for two years, but latterly had been growing rapidly. It was tense, elastic, and fluctuating, and had a deep attachment, being situated two inches external to the spinal column, and about an inch and a half below the angle of the right scapula. On dissection it was found to be in the substance of the trapezius muscle, on incising which a small transparent cyst escaped, with some thin purulent fluid. The cyst wall was composed of well-developed fibrous tissue, with a granular layer lining its interior. Passing down into the interior of the cyst was a thickened cord, which was the retracted head and neck of the cysticercus. There was no history of the presence of tænia, and there were no other lumps about the body. The cases in which these parasites had occurred in muscle were very rare, only four being on record; and another remarkable feature was the length of time the scolex had remained alive, it being two years from the time it was first observed to the time of removal.—Mr. JONATHAN HUTCHINSON, jun., had seen a case of cysticercus in the vitreous at Moorfields Eye Hospital. A great many cases were reported by German authorities, but very few seemed to occur in England.

Mr. ALBAN DORAN gave the sequel to a case of Primary Cancer of the Fallopian Tube reported last year. The right tube, infected with primary cancer, had been removed by Mr. Thornton on March 1st, 1888, together with the right ovary, which was cancerous, but much smaller than the malignant growth in the tube. The left tube and ovary were much damaged by chronic inflammatory changes; they were therefore removed at the same time, and were found to be quite free from cancer. Symptoms of recurrence appeared early in September, and the patient died on Jan. 23rd, 1889, aged forty-nine, after four years of local illness, which began as a watery, afterwards sanious, discharge. She survived the operation ten months and three weeks. The pelvic viscera were removed after death by Mr. Amand Routh. Secondary deposits studded the endometrium, vagina, and vesical mucous membrane. Larger growths were found in the pelvis to the right, and on the stump of the left or non-cancerous appendages. The stump of the right or cancerous tube was free from secondary deposit. It had been divided at the operation, at a part where there was no cancer. The microscopic appearances of the secondary growths were most characteristic of carcinoma. Three cases of primary carcinoma of the tube, including the present example, and two of sarcoma, had been reported. Vaginal discharge, generally sanious, followed by the appearance of a pelvic tumour, were the most constant clinical symptoms.

Dr. DICKINSON brought before the Society a Kidney belonging to a member of a family in which Albuminuria had been hereditary certainly for four generations, and possibly for more. He had referred to this remarkable piece of family history in his book on Albuminuria, but was now able to give it more fully and with the additional information derived from a post-mortem examination. The particulars relating to the family were as follows. The first generation consisted of a brother and four sisters. The brother died suddenly, after long wasting, "of kidney disease in some shape," at the age of thirty-four. Of the four sisters, two died at the respective ages of forty-nine and forty-eight, each having had albuminuria for many years. The brother left six children, two sons and four daughters; of the six, four became the subjects of albuminuria. The second son died with it at the age of twenty-six, having had it since the age of twelve; the eldest daughter died of it at the age of thirty-nine, having had it since sixteen; the second daughter, still alive, had it; the third daughter died of albuminuria complicated with diabetes. All the sisters left children; two of the four transmitted albuminuria. The eldest sister left six, presently to be mentioned; the third left five, one of whom had albuminuria. These constituted the third generation. Of the six children of the eldest sister, five became albuminuric, only the second son escaping; the third son died with it, and was the subject of further particulars. The disorder presented itself in the fourth generation in the only child of the eldest sister, who was born with albuminuria. To these facts were added others which showed the existence of the disease in a collateral line, as was shown in a table presented to the Society. It was stated that the portraits of this family, which had been preserved since the time of Edward IV., showed a peculiar pallor, whether from time or disease, which resembled that which has generally characterised the living and late members. Particulars relating to the characters of the albuminuria in many of the persons referred to were briefly related, showing the general presence of casts and other evidences of renal disease. The kidneys of the only fatal instance in which they were fully examined were described in detail, showing the characters of the granular contracted kidney, general fibrous hypertrophy, universal prevalence of a finely nucleated interstitial tissue, atrophy of many of the Malpighian bodies, with atrophy of many tubes and dilatation of others, the latter being conspicuously plugged with large casts. An exceptional appearance was the existence, sometimes within the tubes, sometimes in less evident relation to them, of numbers of minute calcareous

concretions, which were possibly formed within the tubes as a result of their obstruction. It was discussed whether any calculous proclivity in the family was antecedent to the renal state, and this possibility was negatived by a review of the general clinical antecedents. The conclusion remained that some especial hereditary influence was directed upon the kidneys primarily. Dr. Dickinson had formerly referred to this family history as one of the hereditary granular kidney. What before was only a surmise was now a pathological fact, and as such possibly worthy of the notice of the Society.—Dr. PYE-SMITH, after alluding to the unique interest of the cases, said that gout as a cause should be mentioned, though only one case seemed to have occurred amongst the series. Lead, again, and malaria were possibilities, but as the malady occurred in a large family, who were probably scattered, they could scarcely have been operative in all. Such a table of cases seemed to show that we were right in not drawing very sharp distinctions between the various forms of Bright's disease. The fact that the disease in more than one instance occurred in infancy was new to him. He asked if these were examples of a diathesis or tendency to Bright's disease which was called into activity without the usual predisposing causes. This predisposition of the renal organs to fail when stress was thrown upon them caused them to approach what was seen occasionally in the digestive and pulmonary systems.—Dr. DICKINSON, in reply, said that in three the disease developed during the first year of life, and in one in the first five hours. The disease was both tubal and intertubal, and he could only suppose that there was some peculiar vulnerability of the kidneys which rendered them more liable to disease.

Dr. GOODHART showed a case of Arterio-venous Aneurysm of the Splenic Vessels. The patient, a woman aged forty-nine, was admitted into Guy's Hospital with profuse hæmatemesis, but otherwise with very obscure symptoms—chiefly a very tender abdomen, some diarrhœa, and a murmur over the region of the spleen, which had the character of a venous hum. Ascites came on, then another profuse hæmorrhage from the stomach and bowel, and she gradually sank. The opinion had been arrived at that the case was probably one of gastric ulcer, with some subsequent clotting in the portal vein, and hence the hæmatemesis and the splenic murmur; but at the necropsy, conducted by Dr. Perry, a communication between the splenic artery and vein was found, about two inches from the origin of the latter, and the splenic vein was dilated into a large aneurysmal pouch the size of a hen's egg. Several of the gastric and mesenteric branches of the veins were thrombosed, and, as a secondary result of this, an extensive area of the ascending colon was acutely inflamed. The case was shown as one of great rarity, and because it added another to the few recorded cases of serious inflammation of the coat of the bowel due to thrombosis of the vessels distributed to it.

Dr. ORMEROD communicated a case of Ulcerative Colitis with extensive perforation, which occurred in a patient aged twenty, with no previous history of disease and no family history of importance. She had complained for eighteen months of passing blood and sloughs per rectum. The chief symptoms were at first abdominal pain and passage of blood, then hectic and diarrhœa, and finally peritonitis. Post mortem there was found a large extravasation of fæces, and the large intestine was laid widely open in the transverse and descending colon, upper part of sigmoid flexure and colon. Within the gut was found in the lower rectum extensive loss of mucous membrane, only small islets, like polypi, being left; then a tract of normal mucous membrane; then (in the sigmoid flexure) small sharp-cut circular ulcers; these spread both in depth and by undermining of their edges, forming larger ulcers, which had a tendency to run transversely; higher up these ulcers coalesced and perforated, forming the extensive holes shown in the specimen. The small intestines and all the other organs of the body were normal.—In answer to Dr. Dickinson, Dr. Ormerod said there was no evidence pointing to the existence of dysentery.—Dr. PITT showed a case similar to that under discussion. The chief symptom during life was persistent diarrhœa, while post mortem the whole of the mucous membrane of the colon was destroyed, that of the small intestine being healthy. He wondered if syphilitic lesion about the anus could spread up to involve the whole of the large gut.—Dr. PENROSE referred to two cases of ulcerative colitis, one of which had been diagnosed as typhoid, the other as acute tuberculosis.—Dr. GOODHART said these cases were not uncommon, and he had seen some in which the disease appeared to have spread up from the rectum.—Mr. GODLEE also referred to a similar case, which was diagnosed as proctitis, and which proved to involve the whole of the large gut.—Dr. PYE-SMITH looked upon the fact of perforation as being against dysentery. In the American war, out of an enormous number of cases scarcely any perforated. Causes other than dysentery were common, and he related two in illustration of this.—Dr. DICKINSON was not aware that dysentery was ever of malarial origin, though often associated with malarious disease.—Dr. COUPLAND said that in Germany several cases of ulcerative colitis had been recorded as due to the action of corrosive sublimate.—Dr. ORMEROD, in reply, said that the symptoms were not like those of dysentery, nor was there any trace of syphilis. A tract of normal mucous membrane intervening between the rectum and colon seemed to preclude the idea of ulceration of the latter spreading from the former.

Dr. H. H. TAYLOR related a case in which the Left Auricle pressed on the Left Bronchus. The patient, a lad, had suffered from dyspnœa and palpitation for three years. The area of cardiac dulness was much increased. There was a presystolic thrill and murmur; the liver was enlarged and pulsatile. The pericardium occupied the greater part of the left side. The left pleura contained about one pint and a half of amber-coloured fluid. The heart was considerably enlarged; the mitral valve was slit-like, and admitted one finger; the margins were thickened and rigid; the left auricle was enormously enlarged, the wall being nearly a quarter of an inch thick, and the cavity contained eleven ounces of dark clot. The left bronchus passed behind the left auricle in close contact with it, and was flattened from before backwards in its whole length.

Mr. SILCOCK showed a specimen of Vesiculation of the Mucous Membrane of the Male Bladder and Urethra. The vesicles, varying in size from a pin's head to a small shot, were scattered over the mucous membrane of the trigone; the vesicles at the necropsy contained blood-stained serous-like fluid. As traced with the microscope, the vesicles appeared to commence in small foci of leucocytes or young epidermal cells, the result of rapid focal epidermal proliferation, these undergoing disintegration and solution, so accounting for the granular contents of the vesicles, which in some instances appeared to be mingled with blood pigment. The walls of the vesicles were in all cases formed of and bounded by epithelium cells. The submucosa was free from inflammatory changes. The specimen was taken from the body of a man who died in St. Mary's Hospital after the operation of nephrectomy. A calculus was found impacted in the lower end of the right ureter, the latter being much dilated and hypertrophied. The left kidney and the ureter were normal. The urine examined immediately before the operation was acid, sp. gr. 1013, but previously, from time to time, it had been mingled with much pus. The condition of vesiculation of the bladder was rare; Rokitansky had seen and described it. It might possibly have arisen through the direct irritation induced by the passage of abnormal or excessively irritating urine; possibly indirectly through reflex or direct nerve-irritation.—Mr. SHATTOCK said there was a wax model of this condition affecting the whole of the ureter in the museum of University College.—Dr. COUPLAND said he had placed a similar specimen in the Middlesex Hospital museum. It had been described in Virchow's *Archiv* as cystic inflammation.—Mr. GODLEE had seen two cases of renal calculus associated with development of a herpetic rash in the loin.

Mr. J. HUTCHINSON, jun., showed a specimen of Lumbar Hernia, obtained from an elderly man who died from general paralysis. During life there had been a tumour the size of a man's fist in the left lumbar region, which was resonant to percussion, had a well-marked impulse on coughing, and could be largely reduced by taxis. After death it was found that the hernia had originated in a protrusion of the subperitoneal fat, just outside the quadratus lumborum, and through the fibres of the latissimus dorsi muscle, internal to Petit's triangle. The peritoneal sac must have been returned at every reduction of the hernia. The rupture caused the patient but little inconvenience. The rarity of lumbar hernia was well known, and there were only two or three cases in which a dissection had been obtained. Mr. Edmund Owen operated on one case in a child last year, and a case of operation for strangulation was recorded in 1750. It was probable that, in a considerable

proportion of the cases, the hernia did not protrude through Petit's triangle, and that the spontaneous form was not infrequently of a similar origin to the specimen exhibited—the protrusion of subperitoneal fat through the fibres of the aponeurosis.

The following card specimens were shown:—

Dr. SIBLEY: Tuberculosis of Lungs and Spleen in a Camel.

Dr. PENROSE: Congenital Absence of Upper Two-thirds of Left Ureter.

Mr. W. G. SPENCER: Cast of Congenital Talipes Varus and Valgus from the same subject.

Dr. WETHERED: An Unusual Case of Tuberculosis of the Liver.

Mr. SHATTOCK: (1) Pedunculated Chondroma from Knee-joint; (2) Actinomycosis of Jaw of Heifer.

Mr. D'ARCY POWER: Adrenals in which the Tubercle Bacillus has been Demonstrated from a case of Addison's Disease.

OPHTHALMOLOGICAL SOCIETY.

Cyst of Iris.—Retino-Choroiditis following Concussion.—Orbital Tumour.—Lacrymal Adenoma.—Glaucoma after Scleral Puncture.

AN ordinary meeting of this Society was held on May 2nd, Dr. David Little, Vice-President, in the chair.

Mr. ARTHUR BENSON, Dublin, related a case of Transparent Cyst of the Iris occurring in a man aged twenty. It had first shown about a year previously, disappeared again for a few months, and reappeared. It then grew rapidly till it filled three-fourths of the anterior chamber, at which size it remained stationary till it was removed by operation. The cyst wall was almost perfectly transparent everywhere except at the back, where it was incorporated with the pigmented portion of the iris. It lay in contact with the cornea over more than half its internal surface, and was accurately applied to the angle of the anterior chamber. At one point the pigment of the iris protruded on to its edge. The eye was otherwise normal, tension normal, and vision $\frac{6}{9}$ only. There was no definite history of injury, but he acknowledged to having got a husk of oats into his eye some time before, and there was a leucoma with a transparent centre occupying the upper periphery of the cornea. Possibly this might have been produced by the injury spoken of. The cyst was removed by operation. A keratome was passed into the sclerotic, 0·5 millimetre behind the corneal margin, and into the cavity of the cyst. Through this incision the cyst was removed with the adherent iris. The cornea, where the cyst had been in contact, was next day white and milky (from tearing of the endothelial cells with which the tumour had been in contact); this passed off in a few days, leaving a perfectly healthy cornea, and vision $\frac{6}{12}$, which had since improved. The wound healed as after an ordinary iridectomy. The growth consisted of a large cyst, lined with a layer of compound epithelium five or six cells deep, and contained clear fluid indistinguishable from aqueous. The pupil border of the iris appeared little changed, but there was much difficulty in determining the exact conditions, owing to the fact that the growth was hardened and cut when collapsed. Drawings of the appearances before and after the operation and sections and photographs of the portion removed were exhibited.

Mr. JONATHAN HUTCHINSON, jun., read a paper on a case of Retino-choroiditis due to concussion of the eye. The patient, a healthy boy aged thirteen, received a blow on the front of the eye (not causing any wound) in June, 1888. Traumatic mydriasis had persisted ever since, and a curious form of posterior polar cataract; but the chief feature of interest was pigmentation of the retina around the disc and about the macular region, the periphery being normal. This pigmentation had decreased somewhat during the nine months that had elapsed since the accident, it being first observed about ten days after it, then increasing, and subsequently becoming less marked. The disc had become decidedly atrophic, the visual field limited, and his sight reduced to $\frac{6}{9}$ and 19 J. with the injured eye. In a similar case (so far as the pigmentation was concerned) the changes were limited to the inner side of the disc; here again the visual field was correspondingly limited. The injury had been due to an explosion. Mr. Hutchinson and Professor Becker had described similar cases, the pigment being sometimes confined to the part of retina opposite the point of impact, in others more widely scattered. The fact that this form of retino-choroiditis was almost invariably confined to one eye, and unaccompanied by any sharply-defined choroidal atrophy, but often coexisted with linear rupture of the choroid or concussion-cataract, helped to a diagnosis of the disease in a doubtful case, the history of injury being of course of value. The pigmentation might become general throughout the whole of the retina, though this seemed to be exceptional. The serious effect upon the vision rendered it important carefully to examine the fundus in all cases of recent concussion injuries, and it was probable that some cases of choroiditis attributed to syphilis &c. really owned a traumatic origin.—Dr. GRIFFITHS (Manchester) said that Professor Haab of Zurich, at the recent Congress of Ophthalmic Surgeons at Heidelberg, had pointed out the liability of the macula to disease, and he quoted a case in illustration of this where a foreign body lodged in the vitreous, away from the neighbourhood of the macula, and yet the latter underwent granular degeneration. He had himself seen two cases of permanent mydriasis resulting from injury, and the accommodation in both remained normal.—Mr. LAWFORD said that Haab also dealt with the question of *contre-coup* in relation to injury to the choroid and retina, holding that the damage was generally greatest at the point where the missile struck, and if injury also occurred to the opposite pole of the eye it was always in less degree.—Mr. DOYNE, referring to his case which had been mentioned, said that, though there was pigmentation of both retinæ, yet there was on inquiry a history of injury to the other eye seven years previously.—Dr. W. J. COLLINS had put a case on record in the St. Bartholomew's Hospital reports, where a young woman, after a blow on the eye, suffered from permanent mydriasis; there was no paralysis of accommodation, but transient nebulosity of the lens followed the injury. It was not till several weeks afterwards that micropsia suggested examination of the fundus, when a localised degeneration of the macula was found, with swelling and rucking of the retina at that spot. These observations were important from the point of view of prognostication.—Mr. BRONNER (Bradford) said that changes in the choroid and retina after injury were common. He had for some time carefully examined the fundus after small accidents, and had frequently found limited changes near the macula.—Dr. EALES said that a case similar to that related by Mr. Hutchinson had occurred in his own practice. A man was struck on the temple with a heavy stick; he had concussion of the eye and opacities of the vitreous, but after five or six weeks changes occurred over the inner half of the fundus, and permanent temporal hemianopsia resulted. The case seemed in favour of the theory of *contre-coup*.—Mr. SILCOCK said that choroidal lesions were usually found in the posterior pole of the eye, because the front of the organ was usually struck. If the outer part of the globe was struck, then the inner part of the globe ruptured, and *vice versâ*. It was a question not of *contre-coup*, but of increased intra-ocular tension, which would be greatest opposite that part at which the sclerotic was indented or driven in by the blow.—Mr. JONATHAN HUTCHINSON said the case was interesting because the periodical examination had extended over so long a time. He knew of one case in which degenerative changes went on for years; and he believed that concussion changes in the retina were usually slowly progressive, and went on for long periods after the accident.—Dr. LITTLE alluded to the case of a woman who some years ago received a blow on the eye; he saw her two days after, and there were patches of hæmorrhage in the choroid. Two years later he saw the case again; the sight had deteriorated, and there were extensive pigmentary changes in the whole of the fundus. Had he not known of the traumatism, he would not have associated the changes with the accident.—Mr. HUTCHINSON, jun., in reply, said he felt still inclined to believe in *contre-coup*, for the latter still held good to explain injuries in the skull and brain. Mr. Doyne's and other cases bore out the view that degenerative changes might develop within a few weeks of an injury.

Dr. RAMSAY (for Dr. Reid of Glasgow) read notes of three cases of Tumour of the Orbit. 1. A fibrous tumour which occurred in a man aged seventy-five, and, after existing for seven months, began rapidly to increase in size. It was successfully removed through an incision at the outer part of the upper lid. 2. Sarcoma of the orbit in a man

aged thirty. The growth had been noticed for two years, and had given rise to displacement of the eyeball and loss of vision of that eye. It was removed by dividing the upper lid vertically near its centre, and dissecting down to the capsule of the growth. 3. Carcinoma of the orbit in a man aged seventy-five. The removal of the growth was accomplished with great difficulty, in consequence of its deep attachments and the necessity of preserving the eyeball, the other eye being useless. Three or four months after the operation a secondary growth occurred in front of the ear, and from this severe hæmorrhage occurred. Death ensued ten months after the removal of the orbital growth.

Mr. SIMEON SNELL (Sheffield) read notes of two cases of Adenoma of the Lacrymal Gland, and exhibited the specimens. The first occurred in a servant girl aged twenty-five, and was removed on Dec. 15th, 1879. Shortly before her sixteenth birthday the left eye was noticed to look larger than the right, and gradually became more so. At the time of operation the tumour was felt beneath the upper eyelid, the eyeball being displaced forwards, downwards, and outwards, but sight was unaffected. The growth was removed by dividing the external commissure and then dissecting it out. The eyeball returned immediately to its normal position. The tumour was the size of a large walnut, and flattened on two sides. The second case occurred in a child aged eight months. A swelling beneath the left upper lid had been noticed when the child was two months old. On Nov. 15th, 1888, a small, freely movable tumour, the size of a bean, was easily removed. Microscopical examination in both specimens revealed acini lined with epithelium.

Mr. SNELL then related a case of Glaucoma and Staphyloma supervening two years and a half after Scleral Puncture for Detached Retina, and there was (?) a new growth internally at the site of the puncture. The patient was a policeman, aged forty-three, who came under treatment in December, 1885, for detachment of the retina at the outer and lower part. Vision in this eye $\frac{1}{\infty}$; not improved. There was no assignable cause for the detachment. On Dec. 21st, 1885, a puncture with Graefe's knife was made between the external and inferior recti, near the equator. On Feb. 8th, 1886, the puncture was repeated, the site chosen being nearer the external rectus. Vision improved after this to $\frac{2}{3}$, the detachment being decidedly less. The patient reappeared on Aug. 8th, 1888, with acute pain in the eye and T + 2; vision reduced to perception of light. Severe pain had been present for four days. The sclerotic was staphylomatous at the site of puncture. The eyeball was enucleated on Aug. 20th. The two halves of the globe were exhibited, and showed a spindle-shaped mass situated internally to the staphyloma. Its microscopic characters, in the opinion of Dr. Joseph Coats, suggested an inflammatory condition rather than sarcomatous growth.

The following patients and card specimens were shown:—

Dr. REID: (1) Microscopic Sections of Follicular and Trachomatous Conjunctivitis; (2) Instrument for demonstrating Conjugate Foci.

Dr. W. J. COLLINS: (1) Granulation Iritis from Non-penetrating Injury; (2) Case of Retinal Degeneration and Detachment with Albuminuria; (3) Transient Spontaneous Symmetrical Œdema of Eyelids.

Mr. T. PHILLIPS: Case of Cholesterine in the Retina.

Mr. ADAMS FROST: Changes occurring in a Macular Retinal Hæmorrhage.

Mr. SILCOCK: Syphilitic Inflammation of Tenon's Capsule.

HARVEIAN SOCIETY.

Hysteria.—Hystericine Hemiplegia.

A MEETING was held on April 11th, Thomas Buzzard, M.D., F.R.C.S., President, in the chair.

Dr. STEPHEN MACKENZIE read a paper on certain Points in Hysteria illustrated by cases, some of which were exhibited at the meeting. The first case was one to which he was indebted to Mr. Eastes for bringing that evening, and was that of a young woman aged twenty-seven, who for about three years was the subject of spasms of the inspiratory and laryngeal muscles that gave rise to a peculiar noise. This for a time was incessant or nearly so, and when absent was induced by taking food. By persevering treatment by faradaism and artificial feeding she was temporarily relieved of her complaint, but relapsed from time to time. One point of interest was a hysterogenic zone over the left elbow, pressure on which excited the attacks when absent; lifting the arm also induced an attack. The patient was introduced to the meeting free from spasm, was made to raise her arm, which brought on an attack, but which was controlled by drinking a tumblerful of water. It was pointed out that the case belonged to the category of respiratory and laryngeal spasm which was not uncommon, and a case was related of a "barking" boy. Mr. Eastes' case, however, was an exaggerated example, which proved very rebellious to treatment. Another case of a similar kind in a lady over fifty years of age was also mentioned. The next case referred to was that of a girl from whom a large number of pins and needles came out at various parts of her body. Her account was that she had swallowed a packet of needles. Drawings were shown of the position of the pins and needles, which led to the irresistible conclusion that they had been voluntarily placed beneath the skin in the position found. It was suggested that a wandering needle had originally excited attention and interest, which had been kept up and intensified by intentional deceit. A series of cases was next narrated in which incontinence of urine was present in cases of hysteria. It was usually and rightly held that incontinence of urine was rare in hysteria, but two cases were mentioned in which this symptom was present in hysterical girls. In both cases the hysteria was of a severe kind, bordering on insanity: in one case it was of an almost maniacal character; in the other, of the nature of melancholia. It was next pointed ont that no line of demarcation could be rigidly drawn between hysteria and insanity, and a case was shown which had commenced as hysteria, but which was practically one of melancholia. The importance of endeavouring to treat such cases without sending them to an asylum was insisted on, but it was admitted that some of the patients ultimately became definitely insane. The last case shown was that of a young woman aged twenty-one years, with hemianæsthesia of the right side and hyperæsthesia of the opposite. There was paresis with contraction of the anæsthetic side, accompanied by vaso-motor paresis of the paretic arm. There was no paralysis of the face on the hemiplegic side. There was contraction of the pupil on the side opposite to the anæsthesia, and there had been ptosis. The knee, wrist, and elbow jerks were exaggerated on the paretic side. The plantar reflex was absent on the right side, but present in the left. There was ankle clonus on the right side. There was no muscular wasting in the paralysed limbs, and the electrical reactions were not materially altered. There was no doubt about the hysteria, but the question was whether there was anything more; whether, as had been proved to occur in some cases, the functional disease had gone on to structural changes.—Dr. GEO. EASTES gave a further account of the first case mentioned by the author of the paper. She was always a stammerer, and diarrhœa and family troubles seem to have been predisposing causes.

Dr. WALTER PEARCE showed a remarkable case of Hystericine Hemiplegia in a cook aged thirty-one, who was admitted into St. Mary's Hospital for cramp and weakness of the left side. The family history gave a decided heredity of insanity and alcoholism, in addition to which several members of the family had died of consumption. The patient had been subject to fainting fits and hysterical attacks; menstruation was scanty and frequent, preceded by much pain, and had occasionally determined the onset of the fit. The breathing was rapid—60 per minute—without apparent cause. She stood with difficulty. The left arm was flexed close to the side, and in a state of tonic rigidity. She could only walk with her left foot when allowed to look down at it. The sense of pricking and of heat and cold was entirely lost on the left side, whether of the face, nose, lips, or any part of the trunk or extremities.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

AT a meeting of this Society, held on April 10th, the President, Dr. Thorne Thorne in the chair, Surgeon W. A. MORRIS read a paper on Beri-beri, in which he says that it is an affection which has been known for many years. With the improvements and sanitary advances of the latter part of this century it has been banished to the confines of British territory. Its geographical distribution is very wide, from Japan to Australia. It occurs in epidemic and endemic form, the latter being more limited

than the former. Beri-beri is divided into three stages: the first stage being œdema and numbness; second stage, passive congestion and general anasarca; third stage, paralysis and atrophy. The earliest symptom in the preliminary stage is anæmia, and it remains in a marked and intense form throughout the disease. Nearer the advent of the declared disease, stretching pains in the limbs and loins occur, and a girdle pain is not infrequent. After an attack of fever, or after exposure, œdema attacks both feet, and, following this, numbness, stiffness, and tingling of the swollen part occur. The œdema increases more or less gradually. Accompanying the œdema there is sensory paralysis, both superficial and deep, the patient not feeling a needle thrust deeply into the part, or when the skin is severely pinched. Within a short period of the onset of the symptoms there is a feeling of weight and oppression in the epigastrium, at a point exactly below the ensiform cartilage. This is a constant symptom, and the author calls it hyposternal pain. It is due to the commencing pericardial effusion. The patient suffers from drowsiness and tendency to sleep. The condition gradually becomes worse and the symptoms more intensified, and the second stage is entered. Effusion takes place into the cellular tissue and serous cavities, the numbness and tingling increase, dyspnœa becomes urgent, and the hyposternal pain most acute. The patient cannot lie down unless the head is raised, and the condition becomes, from intense anxiety and fear of impending death, most critical. This stage may last from two to three hours to as many days, when, if the patient survive, the effusion is gradually reabsorbed, and the third stage commences. Motor paralysis attacks the feet and limbs in precisely the same order as the œdema in the first stage, and is accompanied by atrophy and intense debility. The gait of the patient is peculiar and characteristic. At the end of the second stage and the early part of the third stage, if the patient is able to move about, it will be noticed that he walks with the limbs stiff and straight, much resembling a pair of compasses. Later, the motor power becomes slowly lost, the individual only being able to fix the leg by throwing the whole weight of the body upon it. He staggers, with the body bent; and each leg, as it is raised and advanced, has the foot drawn inwards; subsequently all power is lost in the legs, and the patient sinks down, though he can move by sliding on his ischial tuberosities with the aid of his arms; when these are affected he is powerless. Accompanying the paralysis are acute atrophy and emaciation, both very extreme. The third stage ends in exhaustion, or recovery partially takes places, leaving the patient a chronic paralytic, and a few cases completely recover. The heart in beri-beri is always in an irritable state, and it is in connexion with this organ that the greatest danger is to be apprehended in the second stage. The symptoms are those due to pericardial effusion. In the last stage the oppression is less, but the cardiac irritability remains. The chest is œdematous, and there is pleural effusion. The respiration is thoracic and puerile, the extraordinary muscles of respiration being brought into play. In the second stage the dyspnœa becomes very urgent, the breath sounds become bronchial in character, and the breathing is relieved from time to time by a long deep sigh. Beri-beri terminates in three ways: recovery; chronic paralysis; and paralysis, atrophy, and death from exhaustion. The post-mortem signs are those of intense œdema and effusion at the end of the second stage. The blood also is fluid. Treatment is by diuretics, and quinine and iron tonics. Several theories have been advanced as to its cause, but it appears that the principal are—1. Ranking: due to acute anasarca. 2. Malcomson: due to paraplegia and scurvy. 3. Morehead: the expression of the scorbutic cachexia. 4. Bankin: inclined to nervous origin. 5. Chevers calls it an exanthematous fever. 6. Kynsey attributes the disease to a worm in the duodenum. 7. Attributed to the blood. 8. Attributed to malarial poisoning. From the epidemic which Surgeon Morris attended he has taken complete cases of 50 patients, but altogether examined 110. He concluded by stating that, from his experience and the histories he had collected, the disease could only be attributed to three theories—the *neurotic*, *hæmic*, and the *malarial*, and each appear to contain the elements of truth, though simply none of these entirely explain the symptoms. The neurotic theory explains many of the manifestations, but does not show how the spinal cord became affected in the first instance. A morbid condition of the blood certainly exists. From the evidence the author was of opinion that the malarial theory is the correct one. The malarial poison, by producing the profound anæmia, which seems to be the immediate cause, is thus the origin and remote cause. This paper was followed by one on the same subject by Dr. Gimlet, and read by Dr. Turnbull. The President, Sir William Moore, Dr. Scriven, Dr. Payne, and Mr. Sweeting took part in the discussion which followed.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Meat-supply.

AT a meeting of the above Society, held on April 12th, Dr. W. H. Corfield, President, a paper was read on the subject of Meat Inspection and the method of Supervision of the Meat-supply of a large community by Dr. HOPE, deputy medical officer to the city of Liverpool. In Liverpool the supervision of the sanitary authority extended not only to the ordinary phases of inspection of meat, but included also the processes by which meat is prepared for consumption, and the trades carried on in connexion with those processes; besides which, it controls the import and storage both of preserved meat and live stock, as well as the conditions of vessels, railway trucks, pens, lairs, &c., employed in this carrying trade. The powers upon which action is based are derived from several sources—viz.: (1) The Liverpool Sanitary Acts of 1849 and subsequent years, and bye-laws based upon them, which, amongst other things, regulate private slaughterhouses; (2) the Contagious Diseases (Animals) Acts 1878 and 1886, and the Orders of Council made thereunder; and (3) the Public Health Act. The meat inspectors, who are six in number, act under the directions of the medical officers, the services of the veterinary superintendent being available when required. These inspectors are carefully selected from suitable candidates with thorough practical experience as butchers; their wages range from £120 to £225 per annum, and the duties allotted to them are in conformity with the requirements of the Acts referred to. The importation of live stock is regulated by orders of the Privy Council, which specify landing places for cattle subject to slaughter or to quarantine, and also define stations for the landing of animals which are permitted to travel. No restriction is placed upon the importation of live stock from Ireland, but that from Canada is subject to a short detention or "quarantine" at the Huskisson Lairages, the United States cattle being slaughtered on arrival. The cattle are usually carried in the lower holds and between decks, and a fair amount of space is needed for each to avoid injury. The number smothered or injured in crossing the Atlantic during the year is extremely small, and the same may be said of those crossing the Channel. The rule which provides for the efficient cleansing and lime-washing of these vessels after landing the cattle, or before any cargo is taken on board, is strictly enforced in the Port of Liverpool. The great bulk of the animals were killed at the Abattoir Company's premises during the year. The private slaughterhouses are twenty-nine in number, a considerably less proportion than exists in most large towns; they are closely inspected, and nuisances are minimised. The essential requirements of abattoirs in regard to site, structure, and administration were referred to in detail, and reference made to existing abattoirs in various towns; the objections to such private slaughterhouses as were to be met with in most towns were pointed out, and the salient points of the bye-laws which regulate them in Liverpool were enumerated. Passing to the actual inspection of meat, the appearances of unsound meat were illustrated by various pieces from carcases actually condemned as unfit for food. The officers of the corporation exercise no control over meat in transit; their responsibility is limited to that brought for sale or slaughtered within the city, whether for consumption within the municipal boundary or not. A considerable quantity—some seventy-five tons annually—is found to be unfit for food; this is not a great amount considering the large quantities imported. It is the duty of the person in possession of the unsound meat to set it aside in a specified place; there it comes under the notice of the inspector, and the practice then is to call a jury of three members of the trade, who, with the owner, agreeing as to the condition of

the carcase, sign a form of certificate, upon which the meat is destroyed in a manner sanctioned by the Privy Council. When the flesh is not set aside in this way, it is the duty of the inspector to seize it in order to have it dealt with by a justice in compliance with the requirements of the Public Health Act. This Act, it may be noted, does not convert the medical officer or inspector into an arbitrator whose function it shall be to advise dealers in meat what is sound and what is unsound—what may be exposed for sale and what may not; but it assumes that the dealer has a competent knowledge of his trade, and merely directs the officer to seize what in his opinion is unsound, and have the matter decided by the magistrate. Hence the common excuse that the meat was deposited pending the decision of the inspector is or ought to be valueless. The sale of horseflesh as such, or as beef, for human food, has never been encouraged by demand in Liverpool; but, nevertheless, the one or two abortive attempts made to establish it are sufficient to emphasise the importance of Mr. Knowles' Bill. With regard to penalties, leniency in respect to offences which consist in substituting offensive and dangerous articles for nutritious and wholesome food resulted only in encouraging the offenders and increasing the difficulties of dealing with them.—In the discussion which followed, the President, Dr. Gibbon, Dr. Sykes, Dr. Parkes, and Mr. Shirley Murphy took part.

Reviews and Notices of Books.

Onderzoek naar den aard en de oorzaak der Beri-beri, en de Middelen om die Ziekte te Bestrijden. (*An Investigation into the Nature and Origin of Beri-beri, and the Means to be adopted for Counteracting the Disease.*) By Drs. C. A. PEKELHARING and WINKLER. Utrecht: Kemink & Son. 1888. Pp. 128; with 8 Plates (Dr. C. L. VAN DER BURG).

[SECOND NOTICE.]

WE now come to consider the pathological anatomy of beri-beri. In the discussion of the macroscopic changes there does not appear to be any mention made by earlier writers of the impression furnished by a cursory examination that death in cases of beri-beri was due to asphyxia, as is properly noted here. Of importance, too, is the evidence that the fluid accumulation in the three great serous cavities of the body, which is so frequently to be found post mortem in these cases, is but of secondary significance, for the pericardial effusion was formerly regarded as the cause of the sudden death. As to the cardiac hypertrophy, which is especially marked on the right side, and combined with dilatation of the right heart, the investigations of Pekelharing and Winkler coincide with those of Haga. The last-mentioned writer found that the average weight of twenty-five hearts of beri-beri patients was 369 grm. When we take the average of the sixty-four cases examined by the writers, we find the weight to be 355 grm. Now, since Haga found that the normal weight of the heart among the natives was 237·5 grm., the increase in beri-beri is appreciable. Varieties in the pathological changes in organs are mostly either dismissed with a few words or merely alluded to, and a passing notice is given of the naked-eye changes in the heart and voluntary muscles. But a detailed account is given of careful microscopical examinations of the nervous system, primarily of the peripheral nerves, and subsequently of the remaining nerves, including those of the heart. Into the minutiæ of such examination, illustrated and exemplified by excellent plates, we cannot enter here; suffice it if we note that the writers in the main come to the same conclusions as Baelz and Scheube, with certain notable additions—e.g., where the latter regard it as "Eine multiple subacut verlaufende Neuritis welche durch ein specifisches Gift hervorgerufen wird," Pekelharing and Winkler take it that the lesion is a nervous degeneration. This degeneration, which diminishes in intensity and extent in proportion as we approach the nervous centres, was found equally in all cases examined by them post mortem. Though not so elaborately described, Dr. F. J. Fiebig, when confirming the results of Scheube's investigations into kak-ke (beri-beri) in Japan, drew attention to these changes in the peripheral nerves as early as 1885. We have now in this publication the examination of (1) the anterior and posterior roots of the spinal nerves, and (2) the intervertebral ganglia, the pith of which is as follows. The anterior roots are very slightly if at all affected; the process extends to an atrophy of the fibrils of that portion of nerve lying betwixt the mixed nerve and the intervertebral ganglion. "Here, in this ganglion, the limit, as it were, is antecedently marked out, so that, when in case of long continuance of the disease the ganglion fails, the posterior roots themselves degenerate, their continuations, direct or indirect, atrophy, and the atrophic change is demonstrable as far as the columns of Goll" (p. 78). The changes found in the cord are of but slight importance, and are wholly cast into the shade by the alterations in the peripheral nerves. The examination of the medulla furnished no noteworthy abnormalities. The degenerative changes in the muscular fibres are fully considered. The conclusion of the writers is "that beri-beri must be classified under those maladies which are designated peripheral multiplex neuritis." They acknowledge that Scheube and Baelz had already assigned this term to the collection of symptoms pathognomonic of this disease. The principal merit of their research lies in the recognition and confirmation of the initial symptoms of this affection. The expression "commonly designated peripheral multiplex neuritis" (p. 83) is carefully chosen, since "multiple neuritis" would not coincide with the previously expressed opinion "that the neurosis must be regarded rather as a nerve degeneration than a nerve inflammation" (p. 67). From their research, it likewise appears that "in every post-mortem examination of beri-beri patients there are to be found evidences of degeneration as well as regeneration in the peripheral nervous system." A question of great interest, but at present still undecided, is lightly touched on by the authors, and answered with a distinct negative—the question, whether the so-called multiple neuritis can be considered as dependent on a poliomyelitis anterior.

The third subdivision of their work, dealing with the origin of the disease, is highly important. The fact they undoubtedly demonstrate, that bacteria and micrococci are to be found which must be regarded as the cause of beri-beri, was already known, for when the nosotype was once definitely regarded as an endemic polyneuritis, the question was naturally and at once raised—Is this affection the result of a septic intoxication or a septic infection? The causes which were formerly regarded as those from which beri-beri originated must therefore be rejected, since dietetic error, melancholic disposition, &c., though they may endow the individual with a certain predisposition for the malady, are in no ways direct reasons for the appearance of a peripheral nerve lesion such as this. Thus the choice lay between septic intoxication and septic infection, since both may be reasons for the occurrence of a widespread neurotic degeneration, and the choice was by no means a difficult one. The limit for the determination of the causative influence, so far as septic infection went, was a narrow one; hence, when negative or no results were forthcoming, then septic intoxication might be brought forward as the originating cause. Positive results were only obtained by these investigators in the blood after their earliest inquiries had been futile, and the micrococci and bacilli thus discovered are illustrated by two beautiful drawings. Under the next heading we find "the cultivation of these bacteria from the blood of beri-beri patients," two varieties of culture being obtained, "the white and the

yellow." Van Eecke found exactly the same differences independently of Pekelharing and Winkler (page 114). The sources of error which might arise in such microscopical investigation are discussed, and their avoidance indicated. It being thus proved that specific organisms were constant in these cases, it remained for these observers to cultivate them and endeavour by inoculation to provoke in animals those symptoms characteristic of the affection in man; that is to say, they had to induce a peripheral nerve degeneration, especially in the nerves of the hinder limbs. Beri-beri, however, being etiologically a specific affection, the originating cause must have a long and continuous influence before it reaches its full development. A period of from six to twelve months' residence in an infected district is necessary before the development of definite symptoms. Now patients with such symptoms slightly marked, who are removed from the spot in which beri-beri prevails, do not become worse, but improve rapidly, and ultimately recover. It is not surprising, therefore, that the injection of bacteria-infected blood from a patient into the abdominal cavity of a monkey, or the fixation of a portion of infected popliteal nerve in the subcutaneous tissue of the thigh of another monkey, should have given negative results. Other animals, however, were also experimented on, and gave some definite results. Rabbits and dogs were infected with subcutaneous injections varying in number, intensity, and in the periods that elapsed between each inoculation. Of five such rabbits, one exhibited no nerve lesion whatever; one had signs of nerve degeneration in the nerves of the left hinder extremity, but not in the right; while three had well-marked degeneration of the nerves of both hinder extremities. Two rabbits confined in a hutch for fifty-six days, into which beri-beri cultures were daily deposited, were similarly affected with nerve degeneration. In other experiments, too numerous to detail, the nerves of the hinder limbs were in most cases found degenerating; at times, however, no results accrued. Dried cultures brought by these observers to Utrecht were employed in further experiments, and the characteristic nerve degeneration definitely demonstrated. From the blood of infected rabbits micrococci were cultivated, microscopically like those injected into their systems. In the atmosphere, too, these investigators are said to have found bacteria which could induce this nerve degeneration. The culture of the "white micrococci" from the blood of a rabbit infected through the atmosphere corresponded in every way with that obtained from human blood. Notwithstanding these results, the writers are careful to give a guarded opinion as to the influence of the organism in the propagation of the malady. Peripheral polyneuritis *may* ensue as a consequence of other affections, but in beri-beri it is a constant and early symptom. The fact, however, that the nerve degeneration following inoculation need not be the nerve degeneration of beri-beri, and the fact that the endemic tropical characteristics, apart from nerve degeneration, are not induced by these micrococci, are the arguments which render the question still dubious.

The work closes with a short discussion as to the "means whereby the disease may be counteracted." Disinfection of enclosed spaces—e.g., barracks, camps, houses, ships, &c.,—originated by Cornelissen and Kobler, were extensively carried out by Winkler and Pekelharing, and were in their hands most efficacious. The manner in which the disease was checked, not only in individuals by an amelioration of their symptoms, but also generally by a cessation of the spread of the affection, was proof that the virulence of the infecting poison was dependent on the dose, and that it had a cumulative effect.

The following is a *résumé* of the most important points in this work:—1. Beri-beri has no dependence on anæmia. 2. There exists a well-developed and recognisable initial stage for all forms of the malady. 3. The unity of the various clinical and frequently widely differing forms of beri-beri is confirmed by a close investigation into the electrical reaction of nerve and muscle tissue. 4. The majority of the symptoms are dependent on affections of nerve and muscle tissue, and these are due to a definite nerve lesion—degeneration. 5. In the blood of beri-beri patients bacilli and micrococci are to be found. 6. Cultivations of such micrococci give a nerve degeneration of like nature to that found in beri-beri when injected into rabbits and dogs. 7. The inhalation of air impregnated with such culture can originate a nerve degeneration in rabbits. 8. Beri-beri must in all probability be regarded as a contagious disease induced by the action of a micro-organism. 9. The infecting micrococcus can also exist apart from contact with the human being. 10. Direct transmission from one person to another rarely occurs; infection through wearing apparel is more common. 11. The infecting material finds its way into the body principally through the respiratory organs. 12. The spread of the malady can be interrupted by disinfection, or, in a person attacked, by removal; when the symptoms are once well-developed nothing but nature can effect a cure.

New Inventions.

A NEW TRACHELORRAPHY KNIFE AND TENACULUM.

To obtain the necessary success in the operation of Hystero-trachelorraphy (better known as Emmet's operation), it is all important that the cicatricial tissue should be entirely removed and the angles of each laceration evenly and properly freshened. Emmet prefers using scissors of his own design, and no doubt in his hands they act better than the knife; but I fancy a more even surface can be obtained with the latter, if the fear of extra hæmorrhage is dismissed from the mind of the operator. The knives usually sold for plastic operations are never wide at the point or top of blades, and it has always proved a source of difficulty to me, when performing this operation, to denude the very angle of each laceration properly with the knives

usually sold for the purpose, the blades being on the same line as the handles, making it awkward (to say the least) to obtain access to the very point of laceration. Messrs. Arnold and Sons, of London, have made for me two chisel-shaped knives, the one with rounded, the other with straight edge, which I have found a great improvement. These blades, not being set in the ordinary way as regards the handles (see illustration), allow the operator greater facility for denuding the entire track of laceration, more especially the angles, and so make it easier to secure perfect apposition of the cut surfaces, with the certainty of a better result. The cervix, being exposed with the duck-bill speculum, is transfixed by a curved needle set in a handle, with an eye in the point, above the site of laceration. The needle is then threaded with a stout silver

wire, and drawn through; the two ends of wire, after being released from the needle, are handed to an assistant, who thus, while holding the speculum, is able to steady and fix the cervix, drawing it in any direction the operator wishes. I then transfix the apex of a laceration with my barbed tenaculum (also made for me by the same firm), and proceed to cut it out along with the two sides and point of the lacerated surface. I then proceed with each laceration, and when all bleeding has ceased, but not till then, I proceed to pass the wire sutures, approximate the edges, and twist the wires, leaving them *in situ* for a week or so. If the bleeding is free, I swab the surface with a sponge dipped in very hot water or a saturated solution of salicylic acid. When I meet with a bad case of stellate laceration, where the os is split deeply into segments, I quite agree with my friend, Dr. More Madden, that it is better practice to remove the entire cervix (covering the stump with mucous membrane, as recommended by Sims). I am, however, under the impression that where the entire cervix has been removed sterility generally results; and if this is borne out by statistics, I venture to recommend removal of the entire cervix as a prophylactic treatment (so to speak) of difficult labour when due to malformation of the pelvis. I think the chisel-shaped knife will be found a practical improvement, and the barbed tenaculum a valuable aid.

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ANNUAL REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

[SECOND NOTICE.]

IN addition to the points we have already noted in Dr. Buchanan's recent report, two other subjects are dealt with. The first has to do with the prevalence of cholera in Europe during 1887, and the second relates to the scientific investigations which have been carried out for the purposes of the medical department of the Local Government Board. As to cholera, it is pointed out that Dr. Thorne Thorne has continued for the year 1887 the history written as to the European epidemic of 1884–87; and that during the latter year the incidence of the disease was mainly on Sicily, where 1924 deaths took place: on Southern Italy, where there were 704 deaths; and on Malta, where the fatal attacks amounted to 429. The cholera in Malta has for this country the more interest because of the quarantine measures resorted to in a British colony, and to this Dr. Buchanan addresses himself at some length. Quarantine has again and again failed to keep cholera out of Malta, but the Maltese Government have continued to enforce it. And this practice of Malta constitutes a difficulty for this country, for when England has occasion to assert her conviction that restrictive measures of prevention cannot be relied on, her representations have been met by the retort that England herself resorts to the same practice in her Mediterranean colonies. The subject has been discussed by us recently in considering Dr. Pisani's report, and for the moment we may leave it here, trusting that the lesson again learnt by Malta in 1887 may not be without effect, since the Lieutenant-Governor himself has now declared that those who rest their faith on sanitary measures and not on quarantine may find a confirmation of their views in the latest occurrences in the island colony.

With regard to the scientific work carried out during 1887, considerable prominence is given to the subject of "scarlatina in milch cows" and its communicability to the human subject. The position which had been attained up to August, 1887, as to this is again set forth, and certain further researches by Dr. Klein are next discussed. Thus, it is pointed out that, when newly-calved cows have been inoculated with the material of scarlet fever, whether the material was taken direct from the human subject or after it had passed through the calf, the inoculation has resulted in ulcers on the teats, which appear after an incubation period of from four to nine days; the disease induced manifesting itself in various organs, and the post-mortem appearances bearing much resemblance, in essentials, to those found in human subjects dying of scarlatina. As to the so-called Edinburgh cow disease, which was associated, in the milk consumers, with a febrile sore throat, Dr. Klein finds differences between it and the now notorious Hendon disease, and he has come to the conclusion that the former is not the same disease as "cow scarlatina." In forming this opinion much is stated to depend on a proper distinction of the organisms which are classed as streptococci, which, to quote Dr. Buchanan, present to the less-educated judgment "as little difference between one and another.....as, to the eye of the ordinary dweller in towns, exists between the swift, the swallow, and the martin." And, with a view of making clear to the micro-pathologist the grounds on which Dr. Klein bases his opinion, a paper has been prepared on the morphology and biology of streptococcus, which is embodied in the report, and from which it appears that Dr. Klein holds himself in a position to formulate seven sets of characters serving for differentiation between one and another organism of the group; seven tests being thus wanted before an assertion of the identity of any two streptococci can, even provisionally, be made. This chapter will certainly be read with much interest by all students of the subject.

A series of further reports and papers are also included in the volume, these dealing more or less directly with the question of micro-organisms in drinking-water. Some refer to the present unsatisfactory state of our knowledge as to the meaning of the various "colonies" discovered in London waters; and from new observations made by Dr. W. R. Smith, who gets evidence of the presence in our metropolitan supplies of several kinds of organisms, each having cultural characters of its own, we now learn that, on the inoculation of mice or rabbits with them, no morbid result of any importance has been found to follow. Obviously, what we most want to know has to do with the nature and quality rather than with the mere number of the colonies formed by these micro-organisms; and the experiments in question, coupled with those as to the chemical action of the bacteria by Dr. Dupré, show that distinct advance may be hoped for by the promotion of bacterial processes by the chemist and biologist acting in aid of each other. Another paper, bearing on the same subject, is of a totally different character. It is by Mr. W. H. Power, and it deals with some of the considerations affecting the periodical occurrences of lead poisoning from potable water such as have taken place in the public services of Sheffield and Huddersfield, and which we have referred to from time to time. To the intermittent character of some of the lead-poisoning outbreaks attention is especially directed, and it is suggested by Mr. Power that the phenomena, as they have presented themselves, would seem to require for their explanation, not so much the existence of agencies uniformly at work, "but rather the operation of circumstances varying very much as vital processes—especially morbid processes—vary." And he then raises the question whether the life-processes of low animal or vegetable organisms may not be concerned with the solvent action of certain waters upon lead. This is, we believe, an entirely new idea, and one that by no means excludes chemical action in so far as such action may be the result of bacterial life or the destruction of such life.

Further observations are also reported on the question of disinfection which, from former reports, seemed to be making substantial headway. Information of a trustworthy and a practical nature has been much needed on this subject. That which has already been forthcoming as to the true disinfecting action of perchloride of mercury has been extremely valuable; and in so far as further experiments in the same direction have been made, they go fully to confirm that which has before been reported. Indeed, it may be hoped that our knowledge as to the true value of the various agents recommended for disinfecting purposes may soon be based on an intelligible and scientific basis.

The year's work, as summarised by Dr. Buchanan, shows that, whilst a general supervision is maintained as to the health of the country, many of the more important branches of scientific hygiene are being diligently pursued, with a view to the acquirement of such further knowledge as is needed to a proper understanding of the many causes of disease that are still obscure, and of the means of prevention to be applied to a more extended promotion of the public health.

THE LANCET.

LONDON: SATURDAY, MAY 11, 1889.

APART from the long-standing grievance that the Members of the Royal College of Surgeons have been deprived of their commonalty rights, there can be no doubt that in these days of intellectual advancement the refusal to grant the franchise to Members must be fraught with danger to the College itself. Throughout the whole of the present contest between the Council of the College and the Fellows and Members, we have felt, and shall continue to feel, that the principle of representative government is the correct one, and applicable not only to the Royal College of Surgeons, but also to kindred institutions, and that the reasonable and moderate reforms embodied in the present Draft Bill to amend the Constitution of the Royal College of Surgeons of England are worthy of acceptance as a solution of what we consider to be an undoubted grievance, and as an earnest of that progressive spirit which is the very mainspring of vitality in any learned corporation. We congratulate the compilers of the present Draft Bill on their brevity—five clauses contain the settlement of the disaffection. We can plainly trace in these clauses the handiwork of men who are well versed in the necessary requirements of reform, yet jealous of maintaining a steady continuity of connexion between the old order of things and the new. This desire to link on just reform to obsolete practice has been a source of great difficulty in formal expression. While some enthusiasts have been asking too much, and others have timidly been asking too little, we may accept the written statements in the Draft Bill as the intermediate outcome of expressed opinions. This Draft Bill has been accepted not only by the Associations of Fellows and Members of the College of Surgeons separately, but also by representatives of both Associations in combination. It has passed the Parliamentary Sub-committee and the Parliamentary Committee. Moreover, the principles embodied therein have been several times accepted by overwhelming majorities in the theatre of the College by Fellows and Members. We venture to assert that these majorities are more likely to increase than to diminish. The provincial towns are taking up the subject, and all of them have so far accepted the terms of the Draft Bill when a vote has been challenged. There is not a single exception that can reasonably be taken to any one of its provisions; and its moderation should commend it to the common sense and impartiality of the Council.

The College elections are now within fair view of the Fellows. Naturally, many of them are asking the question, "Under what procedure are we to vote in July next?" As no one vouchsafes an answer, might not the Fellows meet for once specially in their own College, and insist upon a reply from the Council? The Council have had more than time enough to have settled all requisite formulæ, and to have expended more than the customary measure of red-tapeism since August, 1888. As the result of the coming July election may be doubtless modified by the adoption or not of the new formulæ, it would be interesting to know whether the Council can render any valid reason for the postponement of this part of its functions?

It is important that the new bye-laws should be approved without delay, and be ready for application in the July election. Whatever other outstanding controversial points may exist, it is certain that the majority of Fellows earnestly desire that the Council election may be conducted by voting papers, and not by compulsory personal attendance. It would be nothing short of intolerable that any laxity on the part of an interested executive should be able to prevent the Fellows from carrying out the acquired privilege of the Supplemental Charter. Are the whole body of Fellows throughout Great Britain to be once more practically disfranchised, with the exception of the small number of resident Fellows within easy distance of Lincoln's-inn-fields?

We view with satisfaction the growing tendency of Fellows and Members to take an interest in the management of their College. The Fellows will expect to have evidence adduced by each candidate for a seat on the Council of his particular views on collegiate politics and management. The increased element of light and criticism admitted into the College by enlarging the multitude of its counsellors must be advantageous to the College and conducive to its safety. To those few Fellows who seem to be unable to conceive that there is any other interest concerned than the maintenance of their own peculiar "privileges," Mr. TWEEDY throws down the glove in another column (vide p. 957). We shall watch with interest to see whether any errant Fellow will pick up the gage, and break a lance in chivalrous defence of his opinions.

THE report presented by Mr. D. CUBITT NICHOLS and Mr. SHIRLEY F. MURPHY to the Home Secretary, as to the immediate sanitary requirements of St. Mary, Rotherhithe, indicates an amount of sanitary neglect and indifference to the circumstances influencing the health of an important portion of the metropolis that must add to the want of confidence already so largely felt in the existing system of London sanitary administration. By the Mansion House Council it was alleged that 643 houses in Rotherhithe had sanitary defects; and as to 525 of these, the vestry admitted the receipt of notices. But no less than 373 houses were found by the Commissioners not to have been dealt with; and amongst the large number of sanitary defects which they themselves discovered, as the result of an extensive inspection of the parish, no less than 564 waterclosets were actually found to be without a water-supply, the vestry professing not to acknowledge the desirability of such a supply.

Rotherhithe is an old district which at one period suddenly exhibited a considerable increase of population, consisting largely of persons at the marriageable and child-bearing age. The birth-rate underwent a rapid increase, and the inhabitants became so numerous that the question of house accommodation was pressing. The sanitary authority failed to keep pace with the requirements; old dwellings became tenemented houses, but no proper regulations were enforced as to such buildings, and the result was that matters went from bad to worse. At the date of the inquiry marked sanitary neglect of houses was general; defective roofs

admitting rain, damp and broken plaster on the walls, worn-out and broken floors, dilapidated window frames and staircases, dirty interiors, broken eaves-gutters and water-pipes, dilapidated and foul waterclosets, and unpaved or filth-sodden yards. These are some of the prominent features of the dwellings of the poorer classes. Here, at least, was a field for active and vigilant inspection of nuisances with a view to remedy, and here it is that the Rotherhithe Vestry most conspicuously failed in their duty. Indeed, it seems almost incredible that, for such a parish, which in 1881 contained over 36,000 persons, there is one solitary sanitary inspector, and even he is not required to act under the instructions of the medical officer of health. The Vestry themselves seem responsible for his proceedings, and nothing like a systematic house-to-house inspection—a proceeding absolutely essential in such a district—has been made. It is, in fact, to quote the Commissioners, "no exaggeration to say that the results of lax administration abound in Rotherhithe, and especially in houses occupied by poor persons." And yet in the face of all this one of the contentions of the Vestry was that "the present sanitary staff is sufficient." It is quite true that they admitted the great age of the houses; but this, coupled with the fact that they were in many cases held by persons without means, seems to have been regarded by them as a justification for having done little or nothing to mend matters; and this although special statutory provision has been made to meet this very want in connexion with the housing of the poor.

The story thus brought to light is in many respects very similar to that elicited by previous reports of the same type as to the present London sanitary administration, and we cannot say that we look with much hopefulness to any material change. The fact is that in the poorer and most neglected parts of London, owners of the worst property find it worth their while to get themselves elected members of the vestries; and once having attained that position, it is forgotten that this plea of keeping down the rates is an essentially selfish one, and that it is the poor who suffer most in consequence. To return to Rotherhithe: it is essential that its sanitary administration should be re-organised on the lines indicated by the Commissioners, who, amongst other things, point out that in its present state no less than three sanitary inspectors are needed, and that these officers ought to be largely superintended or controlled by the medical officer of health. The inquiries, of which the one under consideration is a type, may be expected to lead to useful results; they have exposed the faults which so vitally affect the sanitary administration of some of our London vestries, and they show the need for powerful pressure by some superintending body, such as the London County Council, guided by the advice of an officer fully acquainted with the sanitary circumstances and sanitary needs of the millions who, in this metropolis, are at present practically helpless in the matter of securing for themselves and their offspring healthy homes and healthy surroundings. Those also who have laboured to bring about such commissions of inquiry deserve well of their fellow-citizens.

WE would be the last to dispute the fact that great good has come upon the world through the exercise of faith. It is beyond question that by its means many have been "out of weakness made strong," for there is nothing in its nature more truly native than its inspiring and invigorating influence. Faith may not wait for the evidences of discovery, but often at once commits itself to the unknown, which it seeks to realise and to stamp with the marks of experience. It is therefore near of kin both to imagination, the starting-point of new light, and to courage in the active form of enterprise. A distinction must be made between its rapid perceptions, however correct, and the slower advance attained by rational processes; yet real faith is nevertheless as reasonable in its action as it is wholesome in its effects. We may say that it is a form of reason which reaches its conclusions, not by the steps of logic, and much less by any mere whims of mind, but by a sympathy or sense of harmony which draws it on, as if by a magnetic force of attraction. It does not follow, however, that this kinship with reason is characteristic of all that is called faith, for this quality, like others, has its counterfeits. Among the latter are to be numbered various phases of hope, desire, and will, and it will readily be granted that each of these contains within itself the wherewithal for an erroneous judgment on supposed effects. There is no doubt that the phenomena connected with what is called faith-healing owe their assumed reality to such a fallacious interpretation of appearances. This, at all events, is the teaching of past investigation of such cases. It is obvious that errors may easily occur in connexion with so-called cures of this kind. The difficulties of medical diagnosis, which may, in spite of every available kind of evidence, be physically insuperable, afford one loophole for the pretensions of error. The professional incapacity of the faith-healer necessitates the existence of many more; and the credulity of those upon whom he practises, combined with a very natural eagerness on the part of those who really are ill to magnify any feeling of improvement into a change for the better, aid in establishing a belief in what examination has commonly shown to be a fiction. We say commonly, for there is no doubt that some forms of faith cure are not fallacious. These, however, do not consist in the removal of organic mischief, but in the readjustment of disordered functions. The great bulk of these, and possibly the whole of them, may be referred to the class of nervous disorders. They comprise the hysterical, spasmodic, or quasi-paralytic affections to which weak persons of a nervous type are subject, and if such ailments have been thus "cured," we may take it for granted that the disease, being mainly due to inertia, has disappeared under the stimulus of awakened nerve centres. The latest recorded instance of recovery thus effected is that of Canon WILBERFORCE. In a letter published recently he refers to an internal ailment pronounced by medical authorities to be incurable without operation, which in his state of health at the time was not considered safe. While recruiting strength at the seaside in preparation for the coming ordeal, he resolved to seek relief by prayer, was anointed and prayed over, and lost his internal trouble in a few weeks. This account suggests very forcibly two subjects for inquiry—namely, was the Canon's illness really so serious as it has been described, and, if so, has it disappeared? Feeling as we do a sincere respect for Canon WILBERFORCE, we trust that the latter

assertion admits of no doubt. There is nothing more vague or misleading in the language of medicine than the phrase "an internal ailment." Within it are comprised the widest possibilities of mischief and the veriest nothings of disease. The region referred to is fruitful in uncertainties and in diagnostic disagreements, the mere settlement of which is often impossible without recourse to operative measures. Perhaps the operation which the Canon so happily escaped was devised for some such purpose. At all events, in receiving his statement of recovered health due allowance must be made for the deceptive character of internal disorders. We may safely say also that no medical practitioner of experience can entertain a doubt that the cure in this case, if perfect, has consisted in the removal by natural processes—which, be it observed, were of gradual operation—of some essentially functional trouble. It affords no valid basis for belief in the practices of the faith-healers. These practices, indeed, would hardly merit controversial treatment were it not that they too often mislead sick persons into neglect of proved therapeutic means, which, after all, are truly as divine in origin, and often as miraculous in action, as the faith which moves mountains, and which, in fact, directs their use.

THE three courses of lectures recently delivered before the Royal College of Physicians were interesting for the variety of topics they embraced, and the manner in which each subject was respectively dealt with. Few more important questions could be discussed than that chosen by the Milroy lecturer, Dr. ARLIDGE, and, thanks to many laborious workers, among whom may be specially cited the late Dr. HEADLAM GREENHOW, a very large mass of information has been accumulated upon it. Dr. ARLIDGE was able to point to distinct improvements in regard to the protection of workmen in many occupations from the diseases incidental to their work; but yet facts seem to show how much is still to be desired in this direction. At the same time he impressed on his hearers the fact that in dealing with mortality amongst artisans we must not only consider their liability to special diseases from their particular occupations, but also the unhealthy conditions of life to which so many are subjected in crowded industrial centres. To deal with each and all of the diseases due to trade and occupation would require a bulky volume, and the lecturer did well to select for special consideration that class of disease which is attributable to the inhalation of dust. We cannot but be grateful for his thorough survey of the subject. The Goulstonian lectures by Dr. HOWARD TOOTH were almost strictly confined to a single point in pathological anatomy—a fact which serves to show how deeply such inquiry now penetrates. The study of secondary degenerations of the spinal cord might at first sight seem to have comparatively slight importance; but this impression will soon be removed by an attentive perusal of Dr. TOOTH'S lectures, and by the reflection that it is through such researches as he described that much light has been thrown upon the anatomy and physiology of the central nervous system. These lectures form a solid contribution to the ever-widening stock of knowledge upon these subjects. Lastly, the Lumleian lectures by Dr. JOHN HARLEY were undoubtedly interesting, as they were fluent and attractive. But the manner in which the lecturer ruthlessly sought to uproot our most cherished notions concerning so common a disease as enteric fever was the most remarkable feature these lectures presented. It was a bold thing to stand up before the College of Physicians of London and utter such heretical sayings. Dr. HARLEY several years ago astonished the profession by his singular views concerning the relationship between scarlet and enteric fevers, and he has neither abandoned his doctrines nor mitigated their force. Rather has he extended them and applied them to subvert the doctrine of contagiousness in general, and that of the specific nature of typhoid fever in particular. His lectures were one sustained argument to prove that this disease is due to *exposure to cold*—that *deus ex machinâ* which is invoked for so many afflictions the etiology of which is clouded in obscurity. There is no need to follow the argument, which was so plausibly and cleverly maintained, for it seems to us to be founded upon the shallowest of foundations. It has no support from pathology, and derives only the flimsiest possible justification from the clinical history of a few cases of the disease. It is subversive of all our notions concerning the nature of enteric fever, and is even dangerous in its application to its prevention and treatment. Nevertheless, it is a good thing to be roused now and then out of a too servile acceptance of "orthodox" belief, if only to get the opportunity of seeing how things look when viewed from another standpoint than that of common teaching. For this at least Dr. HARLEY deserves some thanks.

Annotations.

"Ne quid nimis."

NAVAL MEDICAL SERVICE.

THE naval authorities are about to make an experiment in the medical service by the entry of surgeons for temporary service in the department. No explanation has been given of the objects in view in their departure from the established system. There has been no difficulty of late in getting a sufficient number of well-qualified candidates to fill vacancies. It may possibly be in some way connected with a desire to form a naval medical reserve; but this view is scarcely borne out by the proposed regulations, for we find no provision for embodying them on the conclusion of their temporary engagement, or in any way retaining their services. Perhaps it may be an economical arrangement, as the temporary surgeons are to have no claim to be taken on the permanent establishment, or to pensions unless wounded in action. The age up to which these temporary surgeons may be entered has been fixed at thirty-five, so that a number of men who have missed the public service or failed in civil life may be secured. The conditions of service are drawn up in so vague a manner that it is difficult to realise what the advantages and drawbacks are. In the first place, these temporary surgeons are "to engage for six months certain," but no indication is given how much longer their employment may be continued. The authorities are to have the power to terminate the engagement on giving two calendar months' notice of their services being no longer required and a gratuity of two months' pay, and they may dismiss them at any time without notice or gratuity for misconduct or inefficiency. The temporary surgeons may

resign their appointments "subject to the convenience of the service," but the gratuity of two months' pay will not in such event be granted. They are to rank with, but always subordinate to, surgeons on the permanent establishment, to which they are to have no claim to be transferred. Their widows and children are to receive pensions and gratuities in the event "of injury or death caused by acts of the enemy, and not on account of injury, disability, or death which may result from carrying on the ordinary duties of the service." Nor does any provision appear to be made for cases of loss of health contracted in and by the service. We cannot but feel that young medical men should think seriously before committing themselves to an engagement in which all the advantages seem to lie with the authorities, and the conditions of which are so vaguely stated as to leave abundant room for more than one interpretation. One of the very serious objections to the public medical service has hitherto been its ill-defined and constantly varied conditions, and the present scheme may in that respect take a prominent position. However advantageous a well-considered organisation of the proposed kind might possibly be, it seems idle to hope for much from one of the present crude character.

THE COLLEGE OF PHYSICIANS AND THE LUNACY BILL.

THE adoption by the College of Physicians of its committee's report upon the Lunacy Act Amendment Bill, and the resolution to petition Parliament with respect to the matter, may, we hope, result in the final establishment of a thoroughly good working Act. Dr. Bucknill endeavoured to show that the committee had overstated the case, and that they had taken too alarmist a view of the measure, which he would seem to regard as almost perfect; but, in spite of his arguments, he could not prevail upon the College to remain silent upon a question of such considerable importance to the profession at large. There are undoubtedly many good points in the Bill, especially those which protect the signatories of certificates from vexatious prosecutions; and if, as Dr. Bucknill intimated, the number of medical magistrates were increased, there may be less reason to fear the equally vexatious interference with the treatment of the insane that the committee perceive (with reason) would be likely to occur under the enactments of the Bill as it now stands. The profession will look to the College now for the careful preparation of such amendments as may render the Bill thoroughly satisfactory to the community at large, as well as to those who are primarily responsible for the care and treatment of the mentally deranged.

MUSCULAR TREMOR.

FINE TREMORS may be due to hysteria, neurasthenia, multiple sclerosis, paralysis agitans, Graves' disease, senility, and to poisoning by mercury, lead, alcohol, tobacco, and the like. Many of these tremors resemble those induced by unaccustomed action of the affected muscles, by the action of cold on the body, and by fear. The origin of rhythmical motions, as Dr. F. Peterson[1] observes, has been a matter of much speculation. With regard to the coarser oscillations of the different forms of convulsions and chorea, the theory that they are dependent upon the development of explosive discharges in the cortical cells of the motor nerve is one which has found most favour. Curara paralyses the motor nerve endings; the sartorius muscle of a curarised frog, when dipped in a saline solution, will contract rhythmically, Biedemann affirms, even for several days. The so-called fibrillar contractions may be seen in the tongue after section of the hypoglossal nerve, and this has been observed by Bleuler and Lehmann to occur for six months after section of the hypoglossal in rabbits. These phenomena seem to show that muscular tissue may, even in the absence of nerves, present tremors. Gerlach's researches, however, somewhat obscure the doctrine of specific muscular irritability by showing that a nerve fibre in penetrating the sarcolemma divides into interfibrillar threads, which come into direct relation with the sarcous elements. The most philosophical position that can be held with regard to tremors is, in our opinion, not to separate the coarse from the fine varieties when discussing the seat of production in the neuro-muscular system. Nature is not less fertile in the production of disease than is the imagination. The tremor of fear must be largely due to molecular derangements in the motor cortex, but even then we must suppose that the rest of the neuro-muscular apparatus suffers. In truth, a dependence of one part on another may be traced throughout the animal economy and functions. The evidence already before us will almost suffice to establish the proposition that the chief seat of disturbance in cases of tremor may be in one case in the motor cortex, in another in the spinal motors, and in others in the cerebral and spinal nerve fibres proceeding therefrom. We may even admit its purely muscular origin. But any view which disregards the mutual balance of action between antagonising forces will assuredly be imperfect and incomplete.

[1] Journal of Nervous and Mental Disease, Feb. 1889.

THE LIQUOR TRAFFIC AMONG AFRICAN RACES.

"*The subject then dropped*" is the stereotyped close of a debate on the liquor traffic among African races," initiated by the Duke of Westminster in the House of Lords. All good citizens in this country will be deeply grateful to his Grace for the earnest and powerful way in which he brought this subject under the notice of the House of Peers, and through it of the country. It is appalling to think that the country which at a great cost abolished the slave trade is largely responsible for introducing a form of traffic which is gravely said to be almost more demoralising and deadly to lower races than the slave trade itself. The countrymen of Wilberforce and Clarkson should hang their heads in perfect shame over such a state of matters. The one thing that is said in mitigation is that there are other countries who push the trade among helpless races with more heartlessness than we do. This is poor excuse. We have a terrible responsibility in this matter, and we cannot but regret that such grave statements as were made in the House of Lords by the Duke of Westminster, the Archbishop of Canterbury, and others were not answered by Lord Salisbury himself. Lord Knutsford's speech was very well as far as it went, but the evil called for an explicit promise from the Foreign Secretary and Prime Minister that our influence with other countries, as well as our own colonies, should be pressed more than it has yet been. This is not merely a moral question, but an economic one. The natives are spending so much on cheap gin and rum that they have nothing to spend on clothing and other creditable articles of commerce. These drinks are said to be used even by distinguished travellers as a medium of exchange. If we mean to exterminate the natives of Africa, this is perhaps the readiest method we can take. The havoc which drink makes in our cold climate and on our phlegmatic constitutions is slow compared with the quick destruction and complete demoralisation which it effects on the natives of tropical countries. The chiefs of the tribes pray to be saved from this curse, and if the Christianity of Europe and America is not to appear to great disadvantage in its contest with Mohammedanism, men like Lord Salisbury and Prince Bismarck and the Presidents of France and the United States will have to agree to control the degenerate

commerce that with equal heartlessness and folly pushes a trade which destroys at once all other business and the hapless people among whom we pose as friends and helpers.

THE PORT OF LONDON.

WHILST the half-year ending December 31st last was not a specially busy one in the port of London in so far as infectious diseases are concerned, much useful work was carried out. The number of vessels inspected was 10,050, and in 214 instances structural works were required for the purposes of health. The compulsory notification of infectious diseases, now for some time past in force, is found to be a most useful procedure; but Dr. Collingridge points out that a large number of vessels, such as sailing barges, which trade within the limits of the port cannot be brought within the operation of such notification, because they cannot strictly be said at any time to "arrive" in the port of London, and he hopes that legislation will do away with this anomaly. The plan he proposes is that the Local Government Board should obtain powers from Parliament to sanction bye-laws as to compulsory notification within ports much in the same way as they have powers to sanction bye-laws under the Public Health Act. Possibly, some legislation in this direction may be attempted this session, and if so the Corporation of London would do well to see that it shall include port as well as other sanitary districts. In reporting as to action under the Canal Boats Act in the port, Dr. Collingridge points out that 698 canal boats have been inspected during 1888, and that these only carried 1837 persons, although registered for 2570. In short, serious overcrowding has become rare on these boats. Cases of great difficulty do arise, where women having young families accompany their husbands on the boats; and Dr. Collingridge thinks that the sooner the public realise that canal life is not a proper one for women and children, the better it will be for the physique and morals of the rising generation. The failure of the Education Acts alone, as regards this class of children, points in this direction. Some fines were imposed on conviction for such offences as indecent occupation, and in one case for overcrowding.

OVER-WORK IN PUBLIC-HOUSES.

THE movement for reducing the hours of labour has now reached the class of bar servants. Its progress in this direction has in time past been somewhat slow, and has been retarded by conditions of assumed necessity which custom has associated with the house of call. Legislation has been tenderly conservative of anything affecting the comfort of wayfarers, and we might say without material reservation that no considerations of time or of other duty have been suffered to encroach on the interests of the inner man. In some quarters there have, indeed, been signs of reform. The Sunday Closing Act, for example, whatever may be said against it by some thirsty champions of so-called liberty, has at all events provided one day's rest for many who knew none before. Still, the evil of excess in this particular clings as if by a native tendency to the trade in liquor. England as a whole allows almost no respite for ordinary bar attendants, barely even the time required for sleep and for meals, and the scanty conventional fragment known as "church hours." The work, moreover, is of such a kind that *employés* are on their feet from morning to night in an atmosphere which is often far from wholesome. It is hardly surprising if, in the circumstances, men and women feel the strain. Some change is evidently called for. The demand for this does not come of a mere humanitarian sentimentalism. It is the natural expression of fatigue from excess of work done under faulty conditions, and found to be injurious to health. What is required is merely the application of an ordinary sense of moderation in diminishing the period of service, and allowing privileges of rest which are elsewhere granted as a right. Such a scheme of reform, we are certain, is quite compatible with a due provision for public needs and with the prosperity of legitimate trade.

SIR HENRY PITMAN.

WE cordially congratulate Sir Henry Pitman upon the well-deserved honour which has been done him by the College that he has served so long, so faithfully, and so well. It was recorded last week that he had had conferred on him the title—all the more honourable because of its exceptional character—of Emeritus Registrar; and we may congratulate the College also in thus happily retaining as their counsellor so valued and able a man. The College did well to grant the retiring pension of 500 guineas—a sum which received the active support of the late President. The Finance Committee had suggested £500, but Sir William Jenner proposed, as an amendment, that it should be guineas—namely, £525—this representing the annual honorarium which Sir Henry received for his services to the College. This met with the hearty concurrence of all the Fellows. In his few and heartfelt words of thanks addressed to the Comitia last Tuesday, Sir Henry Pitman expressed the pleasure he had had in serving the College, and we can imagine that he leaves his office with a pang of regret. For to have held the post of Registrar during thirty years, and to have been a guiding spirit of the College during all this time, is a great achievement. Sir Henry has done much to foster the development of the College in the forward steps it has taken in the cause of education; and we venture to say that there is no one who is so fully acquainted with the details and the requirements of the medical curriculum; whilst as to the College itself, he has been at all times the foremost exponent of its policy and a faithful upholder of its fame. Long may he continue to enjoy the dignified leisure which his retirement from the cares of office now affords.

THE SANITATION OF THE LAUNDRY.

A POSSIBLE source of danger to health, and one which may upon occasion become the centre of incalculable mischief, is the laundry. The absence of any regulating authority, and the lowly condition of many of the proprietors of these establishments, render them particularly liable to faults of management; while the necessity which the dwellers in towns are under of giving out their laundry work creates a limitless demand. It becomes, therefore, a matter of importance that from time to time the warning voice should be raised, and the public put upon their guard respecting the lurking harm. A certain, even a considerable, risk must at the very best attend the institution of a common laundry. No readier method of disseminating the germs of infectious disease could well be devised than by the intermingling of wearing apparel, and where this intermingling takes place the use of antiseptics can afford no more than an untrustworthy and insecure protection from the risks of contamination. Hence the very safest plan is to arrange, where possible, for the laundry work to be done at home, and by resident domestic servants. But this is a "counsel of perfection" and can seldom be put into actual practice. The common laundry is a necessity of modern conditions of life, and, that being so, the only thing remaining to be done is to turn the force of public opinion in the direction of insisting upon such precautions and safeguards as will minimise its inevitable risks. It is, we fear, an obvious deduction from this principle that the cottager laundress ought hardly to be encouraged. She may be a very worthy person, whose industry and independence we should

all respect and strongly desire to support. But, in towns at least, where space is narrow and one's next-door neighbour is unknown, there are serious drawbacks to her position. She is too dependent on the goodwill of her customers to be able to enforce a quarantine of infected linen if it be offered to her, and probably too little acquainted with their domestic affairs to know whether there is or is not ground for suspicion. Hence housekeepers who take a wise view of their responsibilities will prefer to avail themselves of the facilities and guarantees offered by laundries on a larger scale, where the capital employed suffices to provide adequate accommodation and the scale of the operations enables the managers to exercise a judicious supervision over the work which they undertake, and makes it not only possible, but also commercially necessary, for them to decline such as would involve the risk of introducing contagium to their general stock of clothes. Such laundries are at work, and it is, we hope, a question of time only, and that not a long time, for their better and more scientific methods to supersede entirely the dangerous laxity of the washerwoman industry.

SURGEON-MAJOR LAWRIE ON THE HYDERABAD COMMISSION.

IT is matter of regret that, instead of complying with our request for fuller information, Mr. Lawrie has contented himself with mere dogmatic assertion and iteration of his former statements. Whatever may be the value of the work done by the Hyderabad Commission—and Mr. Lawrie seems inclined to accept the conclusions arrived at, rather than those of well-known and tried scientists,—it is quite impossible for those who have neither seen the experiments to which Mr. Lawrie refers, nor received an authoritative statement as to the methods employed and precautions taken, to accept as evidence the results to which he refers. No mere *ipse dixit* can shake the weight of the large accumulation of facts of which we are now possessed concerning the depressant action of chloroform upon the heart. It is not a begging of the question to say that, whereas human beings are found to die not infrequently from heart failure in the very early stage of chloroformisation, dogs, probably a great deal more terrified, do not die from heart failure at this stage. Mr. Lawrie has never seen a death from chloroform in the initial stage of narcosis; but he seems to forget that others, whose authority we are bound to accept, have done so, and the argument, from the absence of experience, is at the best of times of little value. We refrain from further criticism, as Mr. Lawrie bases his conclusions upon premises the value of which we must decline to accept until full publicity be given to the last detail of the modes in which the Hyderabad Commission pursued its researches.

"PROCURSIVE" EPILEPSY.

THIS term is in far more common use amongst the French than with us. It signifies an attack the chief feature of which is a propulsion of the body in some special direction; it is apparently not accompanied by actual loss of consciousness, or followed by coma; its duration does not exceed that of an ordinary epileptic fit; according to Bourneville and Bricon, it is attended with marked congestion of the face. These cases are known to be epileptic by their associations as well as by the character of the attacks, the element of suddenness being very marked. In the same individual they may be replaced by epileptic fits, or they may replace a true epilepsy with loss of consciousness. There is, indeed, nothing so very remarkable in their occurrence if they be regarded from a physiological standpoint. They are the equivalents of head-banging and head-shaking in infants and children. The actual kind of movement varies much in different cases—in some a rapid revolving of the body around its horizontal axis, in others a rotation in a large circle, and in others a movement recalling that performed by some clowns. The highest expression of consciousness—if this be perfect control over volitional efforts—is evidently lost, since the patient cannot prevent himself from performing these absurd antics.

THE PREVENTION OF CRUELTY TO CHILDREN.

THE Society for the Prevention of Cruelty to Children has now been in existence for five years. During that period it has investigated 1000 cases of cruelty in London alone, and a still larger number in the country. It has been found that owing to technical difficulties only 150 of these were punishable, and penalties have actually been inflicted in 130 cases. Taught by this experience, the Society have drafted a Bill proposing to confer fuller powers of interference and restraint upon any who will interest themselves in the welfare of neglected or ill-treated children. Among the more noteworthy provisions included in this measure are a clause for the suppression of begging by means of children—the parent, not the child, being made responsible; another for the regulation of street-hawking; and a third which by extending the operation of the Factory Act to the streets would provide for the education of many homeless waifs. Children who are insured or otherwise connected with a money interest are particularly liable to ill usage, and special provision has been made for them. Among the difficulties encountered in dealing with such cases, those of search in households where cruelty prevails, of obtaining evidence from near kin and from children themselves which would be sustained in a court of law, of arrest of parents or others in time to prevent imminent bodily injury to their young charges, and of arranging for the custody of rescued children, are particularly noticeable. The new draft contains clauses dealing with each of these conditions. We may describe the measure as, on the whole, a sensible and moderate endeavour to deal with what is at once a very pressing matter, and one which bristles with perplexing legal difficulties. In effect, it merely claims for children the protection due to every citizen, and allowed even to the lower animals. It accepts parental rights, but at the same time enforces parental duties. The necessity for some such Bill is evident; its motive is wholly salutary; and its method, so far as we can see, is open to no valid objection.

AN EXPOSURE OF ELECTRICAL QUACKERY.

A SERIES of letters and articles which have appeared in the pages of the *Electrical Review*, dealing with the tricks of electrical quacks, has just been reprinted in pamphlet form, and should, if well circulated among the public, do something to counteract the effect of lavish and unscrupulous advertising on the part of so-called "medical electricians." Some of the correspondence displays, perhaps, more warmth of indignation than soundness of judgment on the part of writers; but the sentiment is a sound and generous one, for it is impossible to consider without honest anger how shamelessly these quacks practise upon the ignorance of the public, and especially of members of that poorer middle class to whom the guineas which they waste in worthless belts and other fanciful appliances are of consequence. To any person who has even the most elementary knowledge of the construction of a voltaic battery, the description here given of the constituent parts of one of these belts will serve to show that its capability as a generator and distributor of electricity is altogether inconsiderable. Neither better nor worse than the amulet to

which the "untutored savage" pins his faith, this costly trash is palmed off upon a public which, for unsuspecting simplicity, is worthy to compare with the Mashunas whom Mr. Selous found so hospitable in his travels in Equatorial Africa. To protect persons of this mental calibre against the depredations of the commercial shark seems a hopeless task. "Populus vult decipi et decipitur," and one is perhaps almost inclined to add "decipiatur." Nevertheless, we are glad to see that the members of the Committee for the Suppression of Electrical Quackery are sanguine enough to take in hand the work of putting the public on its guard, and we cordially wish them all possible success in their large and thankless task.

THE MEDICAL SOCIETY OF LONDON.

THE annual conversazione of the Medical Society of London was held at the Society's rooms, Chandos-street, on Monday, May 6th. The oration was delivered by Mr. Jonathan Hutchinson, F.R.S., who took for his subject "The Clinical Uses of Rare Diseases," in which he gave a most interesting account of many recently described diseases. The lecture-room was lighted for the occasion by the electric light, which conduced very much to the coolness of the atmosphere, and was hung with pictures and photographs kindly lent by the President (Dr. Theodore Williams) and by Sir Henry Thompson, and included several by the last-named gentleman. In the adjoining rooms were some beautiful instantaneous photographs of animals and men in various attitudes of locomotion, made by Mr. Muybridge, of the University of Pennsylvania, who kindly exhibited them. The President showed Ketchum's Pneumatic Cabinet, and the Graphophone was also on view. The rooms were decorated with flowers, and the band of the Royal Artillery was in attendance, and performed a selection of music in the lecture-room. After the oration the Fellows were received by the President, and the meeting, which was very well attended, was kept up to a late hour.

THE EDINBURGH UNIVERSITY CLUB.

THE Lord Advocate of Scotland presided on Wednesday at the dinner of this Club, and was supported by several distinguished visitors—Professor Blackie, Lord Balfour of Burleigh, the Solicitor-General for Scotland, and others. The Lord Advocate tried to draw the Solicitor-General on the prospects of the Scotch Universities Bill, but he showed much prudence in reply, and complained in a good-humoured way of the hindering effect of another huge Scotch measure, and appealed to Dr. Farquharson to prescribe a holiday impartially to certain members on both sides of the House, which he thought they needed, and which might have no bad effect on the work to be achieved during the remainder of the Session.

FOREIGN PRACTITIONERS IN CONSTANTINOPLE.

IT was some time ago announced that the authorities of the Turkish medical (military) school had been authorised by the Ministry of the Interior to oblige all medical practitioners of foreign nationality who were practising in Constantinople to pass a *viva-voce* examination and to pay a fee of about £7. This arbitrary order naturally provoked a considerable amount of dissatisfaction both among the medical men themselves and among their patients, and protests were got up against the application to old established practitioners of a comparatively new regulation, however reasonable it might be in dealing with applications from new comers for leave to practise. All protests have, however, been without avail, and it is now announced that those practitioners who are not prepared to conform to the order must give up practice.

SERIOUS FEVER EPIDEMIC NEAR HOUGHTON-LE-SPRING.

THE alarm which was occasioned in the neighbourhood of Houghton-le-Spring as to the prevalence of an obscure fever resembling both enteric fever and infectious pneumonia was certainly justified in so far as the severity of the disease is concerned, for we now learn that the epidemic prevails at New Herrington, Philadelphia, Shiney Row, Penshaw, Penshaw Staiths, Bowes House, New Lambton, Colliery Row, Burn Moor, Wapping, and other sparsely populated places; and it further appears that some three hundred persons are suffering from the disease, several of the attacks having already proved fatal. But there are now grounds for believing that, although pneumonia was an early and grave complication in a number of the first attacks, the disease is unquestionably enteric fever prevailing on a wide scale. As to its cause, water has come under suspicion; and from the sudden incidence of the disease on so large a number of persons, there would seem to be some grounds for such suspicion. One of the medical inspectors of the Local Government Board has arrived on the spot, and he will doubtless report fully on the occurrence.

THE NEW REGISTRAR OF THE COLLEGE OF PHYSICIANS.

THE appointment of Dr. Edward Liveing to the important office of Registrar of the Royal College of Physicians will be approved by all who are personally acquainted with the manner in which, during the past two years, Dr. Liveing has performed the duties of Assistant Registrar. We are sure that in him the College will have found a worthy successor to Sir Henry Pitman. Dr. Edward Liveing, who is a Cambridge graduate, was elected a Fellow of the College in 1874. He was formerly assistant physician to King's College Hospital, and is, perhaps, most widely known for his admirable and classical monograph on "Megrim."

INFECTIOUS DISEASES ON THE CLYDE.

DIFFICULTY still arises as to the proper position of the local authority of Greenock with regard to cases of epidemic disease coming to their knowledge on board vessels arriving in their district. That the expense of protecting the sanitary districts which border on the Clyde should devolve on Greenock alone is not a contention likely to be maintained, and it seems reasonable that unless some combined port authority can be formed, special legislation should be considered in order to meet the difficulty.

THE EXHIBITION OF THE ROYAL ACADEMY.

IN our notice last week we accidentally omitted mention of a portrait of Mr. T. Holmes by Mr. W. B. Richmond. The artist has been successful in producing an excellent likeness of the well-known surgeon, and the work is one of very great merit. It was subscribed for by the present students of St. George's, aided by the contributions of the staff and governors of the hospital, and will be presented to Mr. Holmes.

AIR AND EXERCISE FOR HOSPITAL NURSES.

WE have received a sketch of a scheme for securing to hospital nurses the much-needed benefits of air and exercise at an exceedingly modest expense, or practically, indeed, at no expense at all. The scheme is to arrange for making use of the liberality of persons who may have carriages, pleasure boats, or grounds at disposal. An intimation to

Major Meares, who has organised the scheme, that at a given time and place a private carriage will be lent or private grounds will be opened to any specified number of nurses, or any other facilities afforded for recreation, will bring from him a report setting forth how he proposes to utilise the grantor's liberality, and, if his proposal be approved, the arrangement will be carried out in concert with the authorities of the hospital which is intended to be benefited. We can imagine no more useful or more delightful way of turning possessions to account, and we hope that Major Meares' appeal will find its way to many persons rich enough and enlightened enough to assist in the mode that he suggests. His address, it may be added, is 43, Gordon-square, W.C.

BANQUET TO PROFESSOR HUMPHRY.

AFTER the ordinary meeting of the Anatomical Society on May 30th, it is intended by the members of the Society to entertain Professor G. M. Humphry of Cambridge at dinner. This graceful act towards their first president has met with general approbation, and already a large number of well-known members of the profession have signified their intention to be present, amongst whom are Sir George Paget, Sir James Paget, Mr. Savory, Mr. John Marshall, Professors K. Parker, Flower, Cunningham, and Michael Foster. The chair will be taken by Sir W. Turner.

OPPOSITION TO A CHILDREN'S HOSPITAL IN BRIXTON.

OVER a hundred practitioners have signed a protest against the proposal to found another hospital in Brixton. We cannot pretend to form a decided opinion on a question to be determined by many local considerations; but we can only say that the very strong feeling of those who know most about hospitals is that we are embarrassed by too many already, and that it would be better policy to well support and well administer those we have than build any more.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. von Ackeren has been appointed Assistant for Chemical Examinations in Professor Gerhardt's clinic. Dr. Rawitz has qualified as *privat-docent* in Comparative Anatomy.

Constantinople.—Dr. Dühring, assistant to Dr. Unna of Hamburg, has been appointed Professor of Dermatology and Syphilis.

Dorpat.—The Russian Government has granted £300 for a special laboratory and veterinary clinic for the study of Glanders.

Warsaw. — Extraordinary Professors Menthien and Stolnikoff have been promoted to be Professors in Ordinary of Pharmacy and Therapeutics respectively.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Emil Bergeat, assistant in the Physiological Institute, Munich; Dr. Barfoed, Professor of Chemistry in Copenhagen, at the age of seventy-five; Dr. Orestes Rudenski, of St. Petersburg, a military medical officer of very high rank in the Russian army; Dr. Bernhard Weissenborn, a well-known zoologist, formerly assistant to Professor Häckel, of Jena, while on a scientific expedition to the Cameroons; Dr. Bricon, of Paris, editor of *Le Progrès Médical;* Dr. Dépéret-Muret, Honorary Professor of Internal Pathology in the Medical School of Limoges; Dr. Caetano de Almeida, Professor of Histology in the University of Rio de Janeiro.

THE report on the composition and quality of the Metropolitan water-supply during the month of March by William Crookes, F.R.S., William Odling, M.B. &c., and C. Meymott Tidy, M.B. &c., shows that, of 182 samples examined, two were recorded as "very slightly turbid," the remaining 180 samples being clear, bright, and well filtered. The water furnished to the metropolis during March by the seven companies taking their supply from the Thames and the Lea has continued to exhibit a wholly satisfactory character. Dr. E. Frankland, in his analysis, states that taking the average amount of organic impurity contained in a given volume of the Kent Company's water during the nine years ending Dec. 1876 as unity, the proportional amount contained in an equal volume of water supplied by each of the Metropolitan water companies and by the Tottenham Local Board of Health was—Kent 0·5, Tottenham 1·4, Colne Valley 1·5, New River and Grand Junction, 1·8, Lambeth 2·1, Southwark 2·6, East London 3·5, West Middlesex 3·7, and Chelsea 4·4.

WE regret to record the death of Mr. A. O'Brien Jones, F.R.C.S., which took place under somewhat distressing circumstances, at his residence, The Shrubbery, Epsom, on the 1st instant. He was seventy-six years of age, and well known in the town, where he had practised for nearly fifty years. He took an active part in the formation of the Epsom Medical School. On the day of his death he visited his patients, and was, apparently, in his usual health. On returning home in the afternoon he had a conversation with his gardener, and afterwards went to his room where he was found some time after dead, with a note lying near. At the inquest subsequently held it appeared an incapacity for work seemed to press upon his mind. Mr. Barnes, of Ewell, formerly a partner of the deceased, saw Mr. Jones, and found a glass measure and bottle by his side containing prussic acid. A letter at his feet stated that he had taken that poison.

TWO American medical professors have recently quitted the scene of their earthly labours in the persons of Dr. Samuel W. Gross and Dr. Edward T. Bruen. The former was the son of the late distinguished Dr. Samuel D. Gross, and was born in Cincinnati in February, 1837. Deceased made a specialty of the genito-urinary organs, was a valuable contributor to the medical periodicals of his time, and published in 1880 a book entitled "A Practical Treatise on Tumours of the Mammary Gland, embracing the Histology, Pathology, Diagnosis, and Treatment." Dr. Bruen, Assistant Professor of Physical Diagnosis in the University of Pennsylvania, was the author of a creditable work on the "Physical Diagnosis of the Heart and Lungs."

A PASTEUR INSTITUTE was founded at Rio de Janeiro on February 9th, 1888, and out of 106 persons treated between then and January 8th, 1889, only one died—i.e., a child, who only attended ten times out of twenty-three attendances ordered. In sixty-two instances the dog biting these people treated at Rio was recognised as undoubtedly rabid.

AT a meeting of the Lancashire County Council on the 2nd inst., Dr. Pilkington moved "that a health committee be appointed for the purpose of carrying out the powers conferred upon the County Council in relation to the public health."

THE Lord-Lieutenant has nominated Dr. Clifford Allbutt to be a Deputy Lieutenant of the West Riding of the County of York and of the City and County of the City of York.

IT may be useful to some of our readers to have their attention called to an announcement in our columns this week of the means of instruction in children's diseases afforded at the Ormond-street Hospital, where during the present month demonstrations will be given of the Morbid Anatomy of Children, and lectures delivered on Eye Diseases in young persons.

THE thirteenth congress of the Italian Medical Association meets at Padua during some week in the autumn to be fixed by the Central Committee in Rome. Its president will be Professor Achille de Giovanni, member of the Superior Council of Public Instruction, and well-known as one of the ablest consultants in Italy.

PADUA is to be the seat of the next (the third) congress of the Federated Italian Societies of Hygiene, the exact day of meeting having yet to be announced. The organising committee will, it appears, make a special feature of the Hygienic Exposition, which will place on view every important addition to the practical resources of State medicine.

DR. JOHN COCKLE has resigned the post of Senior Physician to the Royal Free Hospital, which he has held for many years, and has been appointed Consulting Physician. Dr. Harrington Sainsbury has been appointed as a Physician; and Dr. F. W. Andrewes as Assistant Physician, to have charge of out-patients only.

WE understand that the President of the Local Government Board has directed that the price of Dr. Barry's Report on Small-pox in Sheffield shall be reduced from 24*s.* to 10*s.*, with a view to the more general diffusion of the interesting matter it contains.

DURING January of this year 1714 persons were buried at Rio de Janeiro, of whom 355 had died of yellow fever and 187 of pernicious fever. The medical profession at Rio has lately accepted Dr. Domingos Freire's system of inoculation against yellow fever, with apparently satisfactory results.

DR. WILLIAM DUNCAN has been elected Obstetric Physician to the Middlesex Hospital, in place of Dr. Edis, resigned; also Lecturer on Obstetric Medicine and on Practical Midwifery in the Medical School.

THE statue of Her Majesty at the new Examination Hall will be unveiled by H.R.H. the Prince of Wales on May 24th.

THE HYDERABAD CHLOROFORM COMMISSION.

BY SURGEON-MAJOR E. LAWRIE,
RESIDENCY SURGEON, HYDERABAD; AND PRINCIPAL, HYDERABAD MEDICAL SCHOOL.

IN THE LANCET of March 2nd, 1889, page 438, there is an annotation criticising certain remarks of mine on the subject of chloroform, in which the writer states that[1] "all those who are familiar with chloroform are well aware that syncope, when primary, as a rule supervenes in the initial stages of inhalation, while secondary syncope due to respiratory embarrassment is the result of accumulation of chloroform in the blood leading to paralysis in the medullary centres, and occurs in a late stage of the administration," and that unfortunately it is the primary form of chloroform heart failure which occurs in human beings, and which it is almost impossible to remedy. I have no wish to say anything to give offence to those who hold the same views as the writer of the annotation, but I hold that those views are wrong, and that there is no such thing as chloroform syncope.

It is conceivable that syncope may occur in the initial stages of inhalation of chloroform, but in the course of a very large experience I have never met with a single instance of such an accident, and if it ever does occur it cannot be due to chloroform poisoning, though it might be caused by fright or shock. Owing to the numerous accidents that have happened with chloroform, to the discussions prevalent in the profession, and to the mistaken notion that the risk of heart failure is inseparable from its use, the public dread its administration much more than they dread surgical operations, and fainting from mere fright in the early stages of inhalation is no less intelligible than it is easy to prevent, in cases where it is likely to occur, by a preliminary dose of alcohol. On the other hand, it is equally intelligible that syncope may be induced if an operation be commenced in the initial stages of chloroform administration, before the patient is rendered insensible to shock by being brought fully under its influence. With regard to secondary syncope, THE LANCET states that it is due to respiratory embarrassment (through the respiratory centre?)—which is an indirect cause; and, in the same sentence, that it is the result of paralysis of the medullary centres (circulatory?) from accumulation of chloroform in the blood—which is a direct cause.[2] Both these statements cannot be true. The truth is that secondary syncope has no more real existence than primary syncope. In poisoning by chloroform the heart fails when the respiration ceases, and never before. With the cessation of respiration the further accumulation of the drug in the blood necessarily ceases, and the heart rapidly or gradually stops beating, as a direct result of the stoppage of respiration, and as an indirect effect of the poisoning with chloroform.

THE LANCET asserts that the statements made in my address are utterly at variance with the experience alike of experiment and practice as carried out in Europe. They are, nevertheless, based on the principles taught by Syme and Simpson, and I hope by their successors, in Edinburgh; and long before the Hyderabad Commission was formed I had satisfied myself that they are entirely true.

The Hyderabad Commission was appointed by the Nizam's Government to verify or refute the opinion that if chloroform is properly given it has no injurious or dangerous effect upon the heart. The experiments of the Commission were performed publicly, and with every precaution against inaccuracy, and the conclusions they arrived at are irresistible. The chloroform was given in every possible way, and in no case did the heart become dangerously affected until after the breathing had stopped. This is not, as THE LANCET avers, a scanty statement of experiments performed upon dogs; it is a summary of the results of more than 200 complete experiments carried out by the Commission, and it tallies exactly with my own experience. If direct heart failure were one of the risks of chloroform, it must have occurred in some of the administrations which I have superintended; but I have never seen the heart directly affected by chloroform, nor have I ever seen the inhalation carried so far in human beings as to affect it indirectly. Neither I nor the Hyderabad Commission have any desire to inculcate a disregard of the heart as a factor in chloroform dangers, and so to provoke a "slipshod carelessness in the use of that valuable anæsthetic." Our object is the very reverse of this, as a consideration of the difference between the position we take up on this point and that of those who hold the same views as THE LANCET will show. THE LANCET would trust to the heart and circulation for signals of danger in chloroform administration. Our contention is that if the administration is ever pushed far enough to cause the heart to show signs of danger, the limits of safety have already been exceeded, and a fatal result must almost inevitably ensue. So far from disregarding the heart as a factor in chloroform dangers, we say that any affection of the heart, either direct or indirect, is the one danger to avoid. But we say, further, that the respiration invariably gives warnings when a dangerous point is approached, and consequently that it is possible to avert all risk to the heart by devoting the entire attention to the respiration during chloroform administration.

[1] To be honest this sentence should run: "All those who are familiar with *deaths from* chloroform in *human subjects*"—which I am not.—E. L.

[2] I may have interpreted the writer's meaning wrongly; but it does not affect the argument.

I am well aware that these opinions appear to go in the very teeth of the conclusions at which the Commission appointed by the Royal Medical and Chirurgical Society and by the British Medical Association arrived, and are opposed to the careful and painstaking experiments of such scientific observers as Snow, Claude Bernard, and McKendrick, as well as to the teaching of the great London schools. But this opposition is more apparent than real. THE LANCET states authoritatively that chloroform syncope is notoriously difficult to produce in dogs. The Hyderabad Commission confirms this statement, and says it is impossible to produce it at all. This difference may be fully accounted for by the fact that the experiments of the Hyderabad Commission were numerous, while those quoted by THE LANCET were not only not numerous, but many of them were performed under conditions which impair their value. Moreover, there are certain points connected with the effect of chloroform on dogs which a careful perusal of all their reports has convinced me neither the Commissions nor the distinguished physiologists appreciated. In any case, I would ask whether anything can be more discreditable or unsatisfactory to the whole profession than the present position of chloroform. During the last forty years, while enormous progress has been made in every branch of medicine and surgery, the position of chloroform has decidedly deteriorated, and the principles necessary for its safe administration have been lost sight of. From the date of its first introduction there was a divergence of opinion between the Edinburgh and London schools with regard to the way we should be guided as to its effects. Up to the time of his death Syme taught[3]—"we are guided as to the effect of chloroform not by the circulation but entirely by the respiration." At the same time Erichsen was teaching, and still teaches, that[4] "when fully anæsthetised the patient requires the most careful watching by the person who administers the chloroform; his finger should never be off the pulse, nor his eyes taken away from the countenance of the patient." These are the opinions of two of the most eminent surgeons that have ever lived, and they are absolutely irreconcilable. Erichsen's opinion has undoubtedly been fortified by the misleading conclusions of the Chloroform Commissions and of the scientific observers above alluded to, but the Hyderabad Commission has proved that Syme was right, and I have no doubt whatever that if his principles were acted on universally all surgeons would find, as he did, that chloroform may be used judiciously, so as to do good without exposing patients to the risk of evil. Chloroform administration constitutes, in my humble opinion, the most pressing and important question in the whole range of practical surgery; and if THE LANCET will not accept the conclusions of the Hyderabad Commission, it is incumbent on it to urge the appointment of a European or joint European and American Commission, composed of men of wide experience in chloroform, to confirm or disprove them.

REMARKS ON THE QUESTION OF SPECIAL HOSPITALS FOR THE EARLY TREATMENT OF THE INSANE.

BY GEORGE THOMPSON, M.D.

MY knowledge of Dr. John Batty Tuke's views of asylum matters is gleaned solely from the leading article of THE LANCET of April 20th, 1889. From that leader I gather that Dr. Tuke contends that lunatics do not recover in the large asylums at the same rate that might be expected to occur in smaller ones. Let us see if that contention is based on facts.

Dr. Tuke was the medical superintendent of one of the smallest asylums in Great Britain—I believe it was the smallest, indeed—from its opening in 1866 to the middle of 1873. The highest average daily number of patients resident was attained in 1871, when it reached 248. The highest number of patients admitted in any complete year of Dr. Tuke's directorship was 81 in 1872. Now, with such a small number to look after, with so few fresh cases to treat, and with the aid of another medical man, we should expect large beneficent results as compared with what we should find in the case of a "monster" asylum—such as, say, the one at Wakefield. I select the one at Wakefield for comparison because it was at the time of which I shall speak the largest sole lunatic charge in the world, because it publishes the details in its annual reports to which I shall refer, and because I happened to hold office in that asylum, and so know that during those years there was no disturbance in the even course of admissions to the asylum such as the sudden opening of a large extension would bring about. The asylum was then under the direction of Sir James Crichton Browne, and the average daily number resident during the five years to which my figures will refer was no less than 1413. During the same years the average in Dr. Tuke's asylum was 235, so that Dr. Browne's charge was as six to one of Dr. Tuke's. The number of patients admitted to Dr. Tuke's asylum in the five years including and ending in 1872 was 356; the recoveries in the same period were 153, which gives a percentage of recoveries on admission of 42·9. In Dr. Browne's gigantic asylum, with its average of 1413 of patients daily resident, the number of patients admitted in the same period of five years was 2293, while the recoveries were 1015, giving a percentage of 44·3. Where, then, is the advantage gained by the very special and exclusive personal attention which Dr. Tuke's small number must have received at his hands? I fail to see it. But I will bring Dr. Tuke nearer the present time. I will show him some figures pertaining to this asylum, as set forth in the printed report for last year, and will "ask a question."

Exclusive of 39 chronic cases brought back from another asylum, where for four years they had been boarded for want of room here, there were admitted 130 fresh cases. Of these 130 new cases 27 had already been discharged recovered before the end of the year, which leaves 103 to be accounted for. Of the 130, 5 were epileptic idiots below puberty; 8 were epileptics who had acquired the disease after mental development had advanced; 25 were general paralytics; 8 were senile dements; and 4 suffered from organic brain disease, such as apoplexies and tumours; making in all a round total of 50 utterly incurable cases.

Now, the question I ask Dr. Tuke is, what would have have been the result of his pet "hospital" method of treatment on those 5 epileptic idiots, on those 8 epileptics, and on those 25 general paralytics? Will he say how many of the 25 general paralytics would have recovered if he had given each one a "hospital" with a resident medical officer and two visiting physicians all to himself? I have said nothing of some 46 secondary dements admitted in the year, because some of them are doubtless included in the 39 cases brought back; nor of "fresh" cases of more than twelve months' standing on admission, of which class there was not a few.

As to the chance of curing general paralytics by "hospital" or any other treatment, I think that, after twenty-two years' experience, I may be allowed to speak with authority. In those twenty-two years I have seen some 400 or 500 such cases, and I cannot remember that more than 4 have recovered; and then it is open to sceptics to say that probably they were not general paralytics, or, if they were, they did not recover at all. So we see a fine prospect of curing such cases by "hospital" treatment.

But this leads me to a question which is of much more serious import than that hopeless discussion of the possible "hospital" cure for incurable lunatics. It is that the mischief is done before the cases come to the notice of those who are competent to treat them. The epileptic, who fifty years ago passed easily through life without giving his friends anxiety except as to his own personal safety, is now driven wild and uncontrollable by being drenched with bromide of potassium, obtained chiefly at the out-patient departments of the hospitals and dispensaries. A form of bromomania is now a well-recognised condition in epileptics admitted to asylums; general paralytics are never discovered until they reach an asylum, when functional disturbance has led to organic disease, and stress of symptoms, distressing enough, alone is the cause of their being sent there at all. The ignorance of mental diseases that prevails outside asylums is truly lamentable; and nothing better can be expected until every medical man is compelled to learn something of insanity. No one should wonder that the lawyers so sneeringly remark that any person with common sense knows as much of insanity as a doctor, when we think of the figure some doctors cut in the courts of law.

Stapleton.

[3] Vide THE LANCET, vol. i. 1855, p. 55.
[4] Vide Erichsen's Surgery, vol. i., p. 14.

DECLINE OF PHTHISIS MORTALITY IN ENGLAND.

THE marked and continuous decline in the mortality from phthisis in England and Wales during the past fifty years of civil registration is one of the most hopeful signs of the improving health condition of our population, and affords the strongest evidence against the alleged physical deterioration of the English people, which is said to be due to the rapid increase of towns mainly arising from the surplus growth of rural districts. With reference to phthisis mortality, doubt has been thrown upon the validity of the statistics derived from the death register on account of the employment of the vague terms "consumption" and "decline" by certifying practitioners in some parts of the country. This suspicion was, moreover, strengthened by the fact that deaths attributed to diseases of the respiratory organs, till recently, increased concurrently with the decline of those referred to phthisis. Dr. Ogle, in his Supplement to the Forty-fifth Annual Report of the Registrar-General, remarked that the gain due to the diminution of phthisis mortality in the ten years 1871–80 was more than counterbalanced by the increase of mortality from diseases of the respiratory system. As, however, since 1880 the decline in the death-rate from phthisis has continued at an increased rate, while the mortality from diseases of the respiratory organs, instead of showing a further increase, has considerably declined, it may be worth while to call attention to the undoubted decline of phthisis mortality. With a view to eliminate to some extent the disturbing effect of the use of the indefinite terms consumption and decline, it will be well for present purposes to deal only with the age-period fifteen to forty-five, when the incidence of true phthisis is most fatal. The mortality of persons (of both sexes) at these ages from phthisis in England and Wales during the ten years 1851–60 was equal to 3943 per million living; it declined to 3711 per million in 1861–70, and to 3194 in 1871–80; while in the seven years 1881–87 this rate had further fallen to 2666. Thus the decrease of mortality was equal to 6·9 per cent. in 1861–70 compared with the preceding ten years, 13·9 per cent. in 1871–80 compared with the preceding period, and 16·5 per cent. in the last seven years 1881–87 compared with the ten preceding years. If the decrease be maintained during the last three years of the current decennium, the decrease per cent. in the ten years will be considerably greater than the figure quoted above for the seven years for which statistics are at present available. These recent figures acquire increased importance from the fact alluded to above, the recent decline of registered mortality from diseases of the respiratory system; the annual death-rate per million of persons at all ages from these diseases, which was 3741 in the ten years 1871–80, declined to 3546 in the seven years 1881–87. The change in the relative incidence of phthisis mortality upon the two sexes is almost as noticeable as is the decline in the death-rate of both sexes. In 1851–60 the mortality of males per million aged fifteen to forty-five years was 3672, and of females at the same ages 4195. In 1861–70 the mortality of males rose slightly to 3683, while that of females declined to 3737, but still exceeded the mortality of males. In 1871–80 the rate of each sex fell heavily—of males to 3332 and of females to 3066; thus in this decennium phthisis mortality among females fell considerably below that of males. The mean annual mortality further fell in the seven years 1881–87 to 2818 among males and 2517 among females. Thus in equal numbers living phthisis mortality among females in 1851–60 was as 114 to 100 among males; in 1861–70 it was 101 to 100; while in 1871–80 it was 90 to 100; and in 1881–87 it was 89 to 100. Or, stated in another way, the mortality from phthisis in 1881-87, compared with that recorded in 1851–60, showed a decrease of 24 per cent. among males and of 40 per cent. among females. After due allowance for the undoubted deficiencies and defects of our national system of certification of causes of death, it is impossible to doubt that the mortality statistics issued by the Registrar-General correctly indicate two facts: a marked general decline of phthisis mortality in England and Wales, and a far greater decline among females than among males. These facts, moreover, taken in connexion with a precisely parallel decline in the mortality from all causes, among persons, males and females, appears to justify the belief that this decline of phthisis mortality, whatever may be the direct laws by which it is governed, is most intimately connected with the general improvement of the public health, due to what is usually understood by sanitary progress.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The Opening Day.

No man of science can look with indifference upon the centenary anniversary just celebrated with so much success and *éclat* in Paris. Leaving aside the political and in many respects very sad aspects of the great French Revolution, every historical student must recognise that this phenomenal upheaval was contemporaneous to a marvellous development of scientific study and research, which constitutes one of the most glorious and distinctive features of the eighteenth century. Buckle, in his "History of Civilisation," eloquently describes how the aristocracy crowded to the amphitheatres to learn anatomy and thronged the laboratory to study chemistry, and how the distinctions of rank faded in the presence of the professor, who alone was superior because he was the teacher. Certainly at this time medical men and men of science came in generally for a share of public recognition more in keeping with the services they had rendered, and were placed in a far better position than they had ever enjoyed before. No one can visit the marvellous Exhibition which has just opened its doors without recognising the immense progress the French have accomplished in spite of the political defects which each, from his particular standpoint, may criticise or deplore.

A hundred years have elapsed since the commencement of the Revolution; and, on the Champ de Mars, the very spot where the Feast of the Federation was held, where the king, the clergy, and the people came to swear fidelity to the principles of freedom embodied in the new Liberal Constitution of 1789, the Universal Exhibition opens its doors to the whole world. Perhaps the event, at which I have just assisted, may hold a yet larger place in history than the Feast of the Federation. Psychologically its influence on the population of Paris was most marked. It is impossible to imagine, to depict, or to estimate the number of the crowd that gathered on this occasion. A few weeks ago Paris was torn by the bitterest party fights, by the deepest political feuds. Anyone who witnessed the virulence of political passion displayed over the Boulanger election could not have believed it possible to bring about harmony so soon and so easily. There is something more than politics in this. Why Paris was so quiet would be a good subject for discussion at the forthcoming Psychological Congress. The whole nation seems to have understood, spontaneously, that this was the time to sink all internal, party, or factious difference, and to forget even international complications. All such matters may be well and good in season, but they should not be allowed to stop the progress of the nation. This great pacific celebration means that henceforth it is impossible to stop the forward march of human genius. And what is particularly striking is that, in the cause of human progress, apart from and above all party considerations, it is the conquered nation, and not the conquerors, who have conceived the idea of this general truce.

Early in the day everyone was on foot, busy with the preparations. At the Exhibition the work of cleaning, sweeping, and clearing packing cases &c. away had been actively pursued all night. A perfect transformation scene was thus promptly accomplished. Favoured by a special pass courteously provided by the authorities, I penetrated the building before it was opened to the public, and had a good opportunity of noting how rapidly all this work had been done. The Exhibition is certainly not complete, but it is principally some of the annexes in the garden that are not finished, because they were undertaken as an afterthought and long after the time appointed. The main building is finished, almost every show-case is in its place, and those that are not yet filled with goods will certainly be completed in a day or two. There is consequently enough and more to see than anyone can hope to examine, unless several weeks are spent in the task. Perhaps the best idea

of the immensity of the Exhibition will be conveyed by the fact that a small railway line to carry passengers from one portion of it to the other is now in working order, and runs no less than 180 trains per day.

At 2 o'clock on Monday, May 6th, punctually as announced, the cannon boomed forth a loud salute, the bugles blared a gay welcome, the bands struck up the "Marseillaise," the soldiers presented arms, and M. Carnot entered the great building. The President of the Republic seemed in the best of health, and the fact that he had been shot at the previous day does not seem to have produced the smallest effect upon him. Those who were present declare that he displayed the greatest presence of mind. Under the vast central dome of the Exhibition, the opening speeches were delivered by M. Carnot as President of the Republic, and M. Tirard as Prime Minister. All the representatives of the State stood round, together with the foreign diplomatic corps, and the delegations from the State institutions—including, of course, the Academy of Medicine, and many other favoured guests. After the speeches, the President walked through the various galleries, and was loudly cheered when he reached the British Section.

The courts were all thrown open to the public as soon as the President had passed through them; and, though the charge for admittance was trebled, the Exhibition was crammed with visitors. Their number is estimated at some 300,000, but no official figures are yet given. The marvel was the absence of accidents. The weather was favourable; it was hot, but there were some clouds, so there was not much sunshine, which, under the circumstances, was fortunate. The authorities, with admirable forethought, had ordered a number of ambulance tents, with all appliances and medical attendants, to be placed in different parts of Paris and the Exhibition. The precise spot where these tents were to be fixed was announced in a great number of newspapers the day before, so that there was no difficulty in finding assistance when needed. I visited several of the ambulances, but the officials in charge assured me they had had little or nothing to do. One policeman, in trying to keep the crowd back at the Exhibition, suffered a fracture of the leg, which was promptly attended to in the ambulance fortunately close at hand.

As the evening came on, the supply of food at the Exhibition ran short. Great provision had been made, but the crowd was greater than had even been expected. Soon wild scenes occurred, not altogether unattended with risk. From the outside itinerant vendors came up to the gates of the Exhibition, and offered pieces of bread, sausage, &c., for sale. These were eagerly bought and passed over the railings. On all sides people in groups were seen eating bread and various cold collations, with the aid of their pocket knives; some sat on the damp grass for this purpose. Thus to inconveniences caused by the great heat and fatigue of the day I must add, in the case of many, the impossibility of obtaining a satisfactory meal. Every provision shop in the neighbourhood of the Exhibition was ransacked; there was not a piece of sausage so stale but that it easily found an eager purchaser. Still the crowd bore these trials with fortitude and good humour. At night the Exhibition, and especially the Eiffel Tower, were magnificently illuminated. The river was studded with little steamers and various crafts, all beautifully illuminated, and fireworks were discharged simultaneously from three different parts of Paris. On the Place de la Concord, the Boulevards, the Rue Royale, as well as the whole distance on the river side, up to the Exhibition and the Trocadero, was one immense mass of people. There must have been a million and a half of spectators out in the streets to enjoy the wonderful sights. Yet, in spite of this immense throng, the utmost order prevailed. There was no horse-play. During the entire day I noticed only a single drunkard. I did not hear a single factious cry or witness the slightest attempt to produce a disturbance. It is difficult to believe that so vast a population could be so orderly in its behaviour, could so well forget its animosities, and so thoroughly appreciate the importance of maintaining a pacific attitude on such an occasion. At times the crowd was so dense that any sudden rush, any panic, must have produced many fatal accidents. To the credit of the Parisian people, be it said, one and all seemed to thoroughly understand the situation and behaved accordingly. In the spectacle of a great nation thus unanimous, we have undoubtedly matter for much thought; and this most favourable result is not unconnected with physical and psychological forces and influences that merit observation. Certainly no such public rejoicings could possibly have been organised in London. The climate in the summer time would be as good as it was in Paris yesterday; and though our thoroughfares are much smaller and therefore more dangerous, still we have plenty of space on the Embankment and in the parks. But we have not a population that could act in so harmonious and orderly a manner. And here some good arguments may be adduced in favour of temperance, for it was undoubtedly the sobriety of the crowd that secured its immunity from riots, disorder, accidents, and loss of life.

It is needless to say that the opening day is not the time to seriously examine the exhibits. It would scarcely be fair at such a moment and in such a crowd to attempt to investigate the merits of products brought by the exhibitors. It is enough for the moment to congratulate them one and all on having helped to secure the success of this, the queen of exhibitions, the greatest show the world has ever seen.

Paris, May 7th.

THE ROYAL COLLEGE OF PHYSICIANS.

THE LUNACY ACTS AMENDMENT BILL.

AN extraordinary Comitia of the College of Physicians was held on the 7th inst., Sir Andrew Clark, Bart., President, in the chair. At the commencement of the proceedings Sir Henry Pitman, in a few well-chosen words, expressed his thanks to the College for their resolutions passed at the last meeting, and referred feelingly to his thirty years' connexion with the College as registrar. The report of the Committee on the Lunacy Acts Amendment Bill was presented, and after some discussion was adopted by the College. The text of the report is as follows:—

The Clauses of this Bill on which the Committee think comment most necessary are those referring to the proposed enactments for placing insane persons under care and treatment.

The Committee observe with regret that these enactments have been conceived and framed entirely from the standpoint of the committal and detention of lunatics as prisoners, without any apparent appreciation of the character of insane persons as patients suffering from disease which requires special means of care and speedy medical treatment. They believe that the certain effect of them—especially of those which ordain that the magistrate or justice shall, if he think fit, visit the alleged lunatic, summon and examine witnesses, administer oaths, and otherwise inquire concerning him—will be most seriously to hinder, and practically to prevent, the early treatment of mental disease under suitable conditions. In view of the strong feeling entertained generally with regard to the occurrence of insanity in a family, and its social consequences, it is impossible to suppose that when a son or daughter begins to show symptoms of serious mental derangement, or when a wife is attacked with puerperal mania, or when other similar cases of recent insanity occur, the family will be willing to disclose their affliction to a neighbouring magistrate or justice of the peace, and to undergo the painful and harassing procedures which the Bill makes necessary before the patient can be removed from home to suitable care and treatment. Such removal, however, in a large number of cases is essential to recovery, and of itself the most successful treatment. The result of such enactments will be the loss of the most favourable opportunity and the best means of treatment; the secret and illegal detention of insane persons under the most unsuitable conditions; the revival of the cruelty, neglect, and abuse of mechanical restraint which prevailed formerly; and the increase of incurable insanity. In their conviction of the certainty of such evil consequences, the Committee entirely agree with the late Lord Shaftesbury, who, after an unparalleled experience of the working of the lunacy laws, felt himself compelled to resign the Chairmanship of the Lunacy Commission rather than assent to such rigid and impracticable regulations as the Bill proposes to apply indiscriminately to recent and chronic insanity.

Further, the Committee consider that the proposal contained in Clause 9, that the patient shall have the right to be taken before, or be visited by, a judge, magistrate, or justice if he has not been seen by one or other before admission, is open to the very grave objection that it incurs the risk of reopening, in the mind of the patient, the whole question of the propriety of what has been done in placing him under control. Up to this point the medical superintendent may occupy neutral ground, and truly say that he has had nothing to do with the proceedings which have led to the present restriction of liberty. When, however, the inquiry which the judge, magistrate, or justice is required to hold for the purpose of legalising the certificates necessitates the evidence of the medical superintendent to prove the patient's insanity, he at once loses his vantage ground, and is made to appear hostile. It is of extreme importance that the best feeling should be cultivated between physician and patient, and anything which involves antagonism must be to the disadvantage of both. Further, it cannot but place the medical superintendent in a most invidious position, to require him to determine whether a patient after admission shall or shall not exercise the right proposed to be given him of seeing a magistrate.

The Committee agree with the report of the Lunacy Bill Committee, presented to the College in 1886, in desiring to refer in terms of strong disapproval to the monopoly of existing private asylums proposed to be established by this Bill (Clause 52, sub-sections 1-6). They are of opinion that one of two principles should govern the policy pursued with regard to such institutions: either that provision should be made for

their abolition, on fair terms of compensation to the proprietors, notwithstanding that they undoubtedly meet the wants of a large section of the community, or that the beneficial influence of healthy competition should be allowed to have its full effects. To create a monopoly of the kind proposed by the Bill, by limiting the establishment of new licensed houses to existing licensees or proprietors, or to any one or more of joint licensees or partners of existing proprietors who desire to carry on business apart, and to continue the monopoly to their successors in business from generation to generation, seems to the Committee a course of procedure open to most serious objections, and obviously contrary to sound public policy.

The Committee are unable to see the object or the justification of the proposed measures in Clause 33, for placing new and special difficulties in the way of the reception of single patients—other than those certified to be suffering from unsoundness of mind of a temporary character, or from decay of mind in old age, or to be desirous of voluntarily submitting to care and treatment—into the private houses of medical practitioners. There are many insane persons who, not falling under these categories, but requiring medical care and supervision, are capable of enjoying and benefiting by the domestic life and comparative freedom of a private house.

The Clause, as it stands, whether accidentally or purposely, subjects medical practitioners to a special prejudice; for, while it applies to single patients in the houses of medical, it makes no mention of single patients in the houses of non-medical persons. The Committee urge that all single patients should be received into private houses on the same conditions as those applicable to the admission of patients into private asylums, and of private patients into public hospitals or asylums.

In the discussion Dr. Bucknill, who opposed the adoption of the report, pointed out that the Bill was framed by Lord Selborne, had been accepted by Lord Herschell and Lord Halsbury, and had twice passed the House of Lords. He considered that it protected medical men very greatly, and referred to several clauses in support of his contention. He deprecated any opposition to it on the part of the College. The other speakers, including Drs. Maudsley, Lockhart Robertson, Wood, Blandford, and others, were all more or less of the same opinion as the committee, Dr. Blandford pointing out that some of the most objectionable provisions had been introduced into the measure since its orginal drafting by Lord Selborne. Eventually, as stated, the report was adopted, as was also a further resolution to petition Parliament in reference to the measure, the committee being empowered to take steps to this end.

The only other business was the formal adoption of an alteration of Bye-law LXXXI. respecting the constitution of the Library Committee.

THE UNIVERSITY OF LONDON.

ON Wednesday afternoon last the Prince of Wales unveiled a statue of Her Majesty the Queen at the University, Burlington-gardens. Amongst the distinguished company present were Lord Granville, the Chancellor, and Sir James Paget, Bart., the Vice-Chancellor of the University, Dr. Quain, and Dr. Wood. The statue, which is the work of Mr. J. E. Boehm, represents the Queen in her robes of State holding the charter of the University (granted by her in the first year of her reign) in her right hand. Lord Granville having welcomed the Prince in a few appropriate words, His Royal Highness unveiled the statue, and, addressing the company, expressed his gratification at having had the opportunity of performing a ceremony of such deep interest to himself. As an instance of the development of the University, His Royal Highness mentioned that when the institution first started twenty-three candidates presented themselves for examination; in 1860 there were 788; and last year they numbered 4647.

Wednesday next, the 15th inst., is Presentation Day at the University, and the meeting of Convocation will take place on Tuesday. Convocation will be asked to adopt a recommendation of the Annual Committee to urge upon the Senate the importance of memorialising the Government with a view of obtaining a fixed annual grant for the purposes of the University. Other matters reported on by the committee deal with a proposal to establish local examinations, and suggestions to avoid large variations in the standard of the examinations in Arts, Sciences, and Law. The following resolution will be moved by the Chairman of Convocation:—"That Convocation has heard with great regret that, in consequence of continued ill-health, Sir William Gull has thought it right to resign his membership of the Senate, and desires to place on record its high sense of the great services which, as well before as since the admission of the graduates to a voice in the corporate government, he has rendered to the University, and to convey to him and his family the hope that he may be spared to enjoy many years of improved health." Dr. W. J. Collins will move a resolution with regard to the desirability of a paper in Surgery being added to the Pass Examination for the Bachelor of Surgery, and another urging the Senate to reconsider their decision to discontinue the examination in subjects relating to Public Health.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6302 births and 3559 deaths were registered during the week ending May 4th. The annual rate of mortality in these towns, which had been 19·9, 19·4, and 19·5 per 1000 in the preceding three weeks, declined again last week to 19·4. During the first five weeks of the current quarter the death-rate in these towns averaged 19·7 per 1000, and was 2·4 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 13·2 in Leicester, 15·2 in Wolverhampton, 16·3 in Birmingham, and 16·6 in London and in Portsmouth. The rates in the other towns ranged upwards to 28·4 in Manchester, 28·7 in Bolton, 29·3 in Oldham, 29·5 in Preston, and 32·3 in Blackburn. The deaths referred to the principal zymotic diseases in these towns, which had been 440 and 461 in the preceding two weeks, declined last week to 428; they included 167 from measles, 125 from whooping-cough, 40 from scarlet fever, 33 from "fever" (principally enteric), 30 from diarrhœa, and not one from small-pox. These zymotic diseases caused the lowest death-rates last week in Wolverhampton and Brighton, and the highest rates in Manchester, Bolton, Oldham, and Preston. The greatest mortality from measles was recorded in Hull, Preston, Manchester, and Bolton; whooping-cough in Newcastle-upon-Tyne, Birkenhead, Oldham, Plymouth, and Preston; scarlet fever in Sheffield; and "fever" in Preston. Of the 33 deaths from diphtheria in the twenty-eight towns, 21 occurred in London, 3 in Manchester, 2 in Bolton, 2 in Preston, and 2 in Liverpool. Small-pox caused no death in any of the twenty-eight large towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and London Fever Hospitals at the end of last week was 617, against 570 and 581 on the preceding two Saturdays; 70 cases were admitted to these hospitals during the week, against 50 and 53 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 294, 300, and 305 in the preceding three weeks, declined last week to 252, and were 115 below the corrected weekly average. The causes of 67, or 1·9 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Bradford, Nottingham, Portsmouth, Cardiff, and Plymouth. The largest proportions of uncertified deaths were registered in Hull, Newcastle-upon-Tyne, and Bolton.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 23·7 and 21·7 per 1000 in the preceding two weeks, rose again to 22·3 in the week ending May 4th; this rate exceeded by 2·9 the mean rate during the same period in the twenty-eight large English towns. The rates in these Scotch towns ranged last week from 11·6 and 15·3 in Leith and Greenock to 28·6 in Glasgow and 29·9 in Paisley. The 570 deaths in the eight towns showed an increase of 16 upon the number in the previous week, and included 47 which were referred to whooping-cough, 33 to measles, 16 to diarrhœa, 6 to diphtheria, 2 to "fever" (probably enteric), and not one either to small-pox or scarlet fever; in all, 104 deaths resulted from these principal zymotic diseases, against 107 and 108 in the preceding two weeks. These 104 deaths were equal to an annual rate of 4·1 per 1000, which exceeded by 1·8 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 27, 34, and 43 in the preceding three weeks, further rose

last week to 47, of which 36 occurred in Glasgow, 4 in Dundee, 2 in Edinburgh, and 2 in Paisley. The 33 deaths from measles showed, however, a decline of 10 from the number in the previous week, and included 26 in Glasgow and 4 in Aberdeen. The 16 deaths attributed to diarrhœa showed a further increase upon the numbers in recent weeks, and exceeded the number in the corresponding week of last year by 13; 8 were returned in Glasgow and 3 in Dundee. The 6 deaths from diphtheria exceeded the number in the previous week by 2, and included 3 in Edinburgh. Both the fatal cases of "fever" were returned in Glasgow. The deaths referred to the principal diseases of the respiratory organs, which had declined in the preceding four weeks from 173 to 104, were last week 110, and were 2 below the number in the corresponding week of last year. The causes of 58, or more than 10 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23·5 and 28·2 per 1000 in the preceding two weeks, declined again to 26·5 in the week ending May 4th. During the first five weeks of the current quarter the death-rate in the city averaged 25·9 per 1000, the mean rate during the same period being only 17·6 in London and 16·5 in Edinburgh. The 177 deaths in Dublin showed a decline of 14 from the number returned in the previous week, and included 5 which were referred to "fever," 3 to measles, 1 to scarlet fever, 1 to whooping-cough, 1 to diarrhœa, and not one either to small-pox or diphtheria. Thus the deaths from these principal zymotic diseases, which had been 21, 8, and 13 in the preceding three weeks, declined again last week to 11; they were equal to an annual rate of 1·6 per 1000, the rates from the same diseases being 2·2 in London and 1·4 in Edinburgh. The fatal cases of "fever," which had been 2 and 6 in the previous two weeks, were 5 last week; and the deaths from the other zymotic diseases scarcely differed from the numbers in the previous week. The deaths of infants showed a further decline from the numbers in recent weeks, and those of elderly persons were within one of the number in the previous week. No inquest case or death from violence was registered; and 69, or considerably more than a third, of the deaths occurred in public institutions. The causes of 15, or more than 8 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—Deputy Surgeon-General J. Allen Marston, M.D., C.B., F.R.C.S., to be Surgeon-General, ranking as Major-General, vice W. A. Mackinnon, C.B., appointed Director-General, Army Medical Department (dated May 7th, 1889); Surgeon-General Marston has also, we understand, been appointed Principal Medical Officer at Gibraltar; Brigade Surgeon Charles Hervé Giraud to be Deputy Surgeon-General, ranking as Colonel, vice J. A. Marston, M.D., C.B., F.R.C.S. (dated May 7th, 1889); Brigade Surgeon George Carson Gribbon, M.B., is granted retired pay (dated May 8th, 1889); Surgeon-Major Richard Wm. Davies to be Brigade Surgeon, ranking as Lieutenant-Colonel, vice B. C. Kerr, M.D., granted retired pay (dated April 2nd, 1889).

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon William Richard Dambrill-Davies to be Surgeon-Major, ranking as Major (dated May 8th, 1889).

ADMIRALTY.—Deputy Inspector-General of Hospitals and Fleets Edward Townsend Mortimer has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet (dated May 3rd, 1889).—The undermentioned Fleet Surgeons have been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet:—Henry Hadlow and Thos. Smith Burnett (dated May 3rd, 1889).

The following appointments have been made:—Fleet Surgeon Geo. Curtis to the *Dædalus*, and Surgeon Francis J. Lea to the *Asia*, additional (dated May 2nd, 1889); Surgeon Charles Dickinson to the *Linnet* (dated May 7th, 1889); Surgeon Joseph H. Whelan, M.D., to the *Wildfire* (dated May 8th, 1889); and Surgeon Henry G. Jacob to the *Indus*, additional (dated May 7th, 1889).

MILITIA (Infantry).—4th Battalion, the Royal Welsh Fusiliers: Surgeon and Honorary Surgeon-Major J. Richards, M.D., resigns his commission; also is permitted to retain his rank and to wear the prescribed uniform on his retirement (dated May 4th, 1889).

VOLUNTEER CORPS.—*Artillery:* 3rd Volunteer (Lincolnshire) Brigade, Eastern Division, Royal Artillery: George Skelton Stephenson, M.B., to be Acting Surgeon (dated May 4th, 1889).—1st Banff: Stewartson Clark, M.D., to be Acting Surgeon (dated May 4th, 1889).—1st Glamorganshire: Surgeon C. T. Vachell, M.D., to be Surgeon-Major, ranking as Major (dated Feb. 1st, 1889).—*Rifle:* 1st Volunteer Battalion, the Buffs (East Kent) Regiment: Joseph Hopkins Mitcheson, Gent., to be Acting Surgeon (dated May 4th, 1889).—2nd Volunteer Battalion, the South Staffordshire Regiment: Sydney Partridge, M.B., to be Acting Surgeon (dated May 4th, 1889).—1st Volunteer Battalion, the King's Own (Yorkshire Light Infantry): Arthur Robert Steel, Gent., to be Acting Surgeon (dated May 4th, 1889).

Correspondence.

"Audi alteram partem."

REFORM OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—I beg to submit to you the following correspondence respecting a circular signed by twenty-one Fellows, and presumably sent to all the Fellows of the College, inviting answers to certain questions and criticisms on the *first* and now obsolete Draft Bill to amend the Constitution of the College of Surgeons.—I am, Sirs, yours truly,

Harley-street, W., May 6th, 1889. JOHN TWEEDY.

100, Harley-street, W., May 1st, 1889.

Re THE ROYAL COLLEGE OF SURGEONS.

DEAR SIR,—I have just returned to town from Gibraltar, and may have overlooked some of the letters and papers which have been delivered during my absence.

There is a circular signed by yourself and others, dated April 15th, relating to a Draft of a Bill to amend the Constitution of the Royal College of Surgeons, which was published in the *British Medical Journal* on March 9th.

As this Draft has been withdrawn and replaced by another substantially different, which was prepared in accordance with a resolution passed at a meeting of the Committee of the Association of Fellows held on March 27th, and accepted by the Parliamentary Committee on April 4th; and as your questions and criticisms do not apply to the new Draft Bill, which was published in THE LANCET and the *British Medical Journal* on April 13th, I shall be obliged if you will kindly inform me whether you and your co-signatories have withdrawn your circular of April 15th, or whether you still invite replies and "remarks."

I am, dear Sir, yours truly,

Charles Stonham, Esq., F.R.C.S. JOHN TWEEDY.

62, Welbeck-street, W., May 2nd, 1889.

DEAR SIR,—We shall be much obliged if you will send us the paper filled up, and also any remarks you may have to make on the subject of your letter.—Faithfully yours,

J. Tweedy, Esq. C. STONHAM.

100, Harley-street, W., May 6th, 1889.

DEAR SIR,—I thank you for your note of the 2nd inst.

As the Draft Bill referred to in your circular no longer exists, and had indeed ceased to exist a fortnight before your circular was issued, it is needless now to consider whether I "approve" or "disapprove" of some of its clauses. Besides, my opinions on the subject of Reform of the College of Surgeons are, I believe, sufficiently known not to need the casual expression which your note seems to suggest.

I am, however, glad to find that you and your colleagues seem to approve the action taken by the Committee of the Association of Fellows to ensure that the Bill to be introduced to Parliament shall be in harmony with the resolution passed (with scarcely a dissentient) at a large general meeting of Fellows and Members held in the College on Nov. 4th, 1886, to the effect that Members of the College

of ten years' standing should be empowered to take part in the election of the Council, and that Members of twenty years' standing should be eligible to sit in the Council provided that the number of such Members should not exceed one-fourth of the whole Council.

With respect to the presumptive object of your circular, I may say that no one would welcome more cordially than I an intelligent and well informed criticism of the position which some of us have taken in this matter. But this is precisely what, in spite of much solicitation, I have hitherto been unable to elicit. The only tangible proposition yet advanced—and it has been advanced by three of your colleagues—is that the Members of the College are really only Licentiates, and, corresponding to the "Foreigners" of the old corporations, have no corporate rights or status. Now, as all the charters of the College expressly declare that the Members either alone or in conjunction with the Fellows constitute "the body politic and corporate of the College," it is impossible to discuss seriously a constitutional question with critics who use language in a manner at once so arbitrary and unconventional.

As two of your colleagues have assured me that they appended their names to your circular in ignorance of the fact that the Draft Bill to which it refers had been withdrawn, and as the circular is likely to mislead many of those to whom it has been sent, it seems but right that our correspondence should be made public. I shall therefore submit it to the Editors of THE LANCET.

I am, dear Sir, yours truly,

C. Stonham, Esq. JOHN TWEEDY.

HOSPITAL ORGANISATION.

To the Editors of THE LANCET.

SIRS,—I beg for space to put before your readers a few remarks on what is, from the medical point of view, the most prominent reason urged by the Charity Organisation Society in support of a petition to the House of Lords now being sent round for the signatures of the profession. This petition for a Select Committee to inquire into the administration and organisation of voluntary hospitals, sets forth its *raison d'être* under ten headings. Some of the points urged will doubtless meet with general approval, and I propose to comment on that only which appears at the head of the list, and involves a question of vital importance both to the interests of medical education and of the suffering poor who now seek relief at the metropolitan hospitals.

The clause to which I refer runs as follows: "The promiscuous congregation in out-patient departments of large crowds of persons, who in most instances are suffering from slight ailments for which skilled hospital treatment is quite unnecessary, is a constant hindrance to medical instruction, increases the discomfort and pain of those who are suffering from severe maladies, and occasions much vexatious and needless waiting." In my opinion this clause involves a grave misstatement and a dangerous fallacy; and, further, implies the necessity, as a remedy for the alleged defect, of some system of selection of cases to be dealt with by the hospitals in connexion with medical schools. The misstatement and the fallacy are here almost inextricably confused. I do not think that any skilled and careful hospital physician of experience would endorse the statement that most of the applicants for hospital relief are the subjects of ailments which are beneath his notice, or useless for the purpose of instructing either himself or his pupils. And whether or not it might be literally admitted that in a certain number of cases "skilled hospital treatment" is not called for, all who carefully examine the clause will see that it either means that from the hospital and school point of view treatment is the one thing necessary, or that it implies much more than it states, and is intended to convey that the vast majority of cases (vaguely dubbed "slight ailments") which at present are seen at our hospitals, are not only useless, but also a hindrance from the educational point of view. Now, whichever view may be taken of the meaning of this elaborately confused clause, after all possible analysis, it cannot be endorsed by hospital teachers in general, and its object must be admitted to run counter to the interests of medical education, and therefore to those of the public, not to make further mention here of those of the applicants for relief.

It is unnecessary to dwell in a medical journal—however great the public ignorance on the matter may be—on the meaningless nature of the term "slight ailments" as here used, or to insist on the indispensable necessity of a student's medical knowledge being gained from the crude material of disease as complained of by the patient, instead of from cases selected on any principle whatever. It is surely the business *par excellence* of the skilled physician and teacher to deal with the beginnings of disease, and to detect and unfold the meaning, as far as possible, of any complaint, however slight it may appear to the half-educated eye, and however slight it may turn out to be after full investigation; and it is obvious that even "skilled" treatment finds its proper place in this connexion. I believe it to be unquestionable, moreover, that a large majority of the cases which come to the out-patient rooms of the hospitals to which schools are attached are by no means those which could in any sense be called trivial, and that it could be shown that, when any considerable number are so called by a hospital physician, there has been a want of interest, care, or insight on his part. Doubtless many of the physicians who see out-patients are overworked, and perhaps inadequately rewarded; but the remedy for this lies in affording them proper assistance, and not in the direction hinted at by the Charity Organisation Society. Any attempt to assimilate the work of a hospital physician to that of the strictly consulting physician, or to convince the uninstructed public that "skilled" hospital physicians, who are before all things teachers, should have the same kind of material only to work on as they are supposed to have in what is called pure consulting practice, would be disastrous to the physician himself and fatal to one of the most important elements in the education of the general practitioner of the future. That any other institution, with presumably less skilled officers, should be required to act as a diagnostic sieve for the supply of pathological treasures to the educational establishments, cannot surely be tolerated by any earnest hospital physician or teacher. All the great value of the out-patient department for teaching purposes would disappear were the physician's work there confined to "well-marked cases."

It is easy to see that from the educational point of view alone no such system would ever have been suggested, and therefore I would strongly deprecate the introduction of this argument into the clause of the petition which is the subject of these remarks. I trust that the teachers of the London hospitals will see that this point is clearly brought before the House of Lords in some form with reference to the petition of the Charity Organisation Society. Its importance, I think, can scarcely be exaggerated. In any reform of the present hospital system the questions of the interest of medical education, the relief of the suffering, and the vexed social one of the encouragement of "thrift" must frankly be kept as distinct as possible. There is no necessary antagonism between them, and most who know would probably allow that, with certain drawbacks, perhaps unavoidable, the interests of medical education in the main are not only compatible with, but importantly subserve, the best interests of the suffering poor who form so large a part of our hospital applicants. With regard to the "vexatious waiting" entailed on hospital patients which is urged in the petition as a support for the main contention, while admitting that this evil exists to a certain extent, I would merely urge that a vast number of those who so wait willingly do so, with the full conviction that their cases will be investigated with greater care than they probably would be elsewhere—a conviction which it is not too much to say is generally justified. But it is my main purpose in this letter to draw attention to the danger threatened to the work of hospital physicians and surgeons and students, and the secondary evils which would result therefrom to the public at large of all classes, should the medical element in the arguments of the Charity Organisation Society in support of the present petition be permitted to come before the House of Lords unchallenged by the London medical teachers.—I am, Sirs, yours &c.,

London, May 4th, 1889. H. B. DONKIN.

To the Editors of THE LANCET.

SIRS,—The resolutions recently carried at a meeting over which the Lord Mayor presided, if allowed to be considered by the public as the easiest method of overcoming the financial difficulties now affecting metropolitan hospitals, will assuredly revolutionise the "principles" as well as the "practice" of medicine. The abuse of hospitals arose in the first instance from the selfishness of medical men holding good positions in large cities, who, to increase their

reputation and obtain good or interesting cases, prescribed for, or operated on, any patient applying, irrespective of his means. But it may be contested that it is not the office of the medical man who attends these institutions to inquire into the social or financial condition of any rather well-dressed patient who may present himself to be healed, and it may at once be conceded that the duty might with more dignity be undertaken by a specially appointed official. If the hospital surgeon or physician were the centre of a certain circle of patients, within the precincts of which no other medical man had the rights of entry, it would matter to nobody but himself under what conditions he might see his patients. But when it is considered that many of those whom he sees at his hospital are perfectly able and willing to assist in producing the means of livelihood for some minor professional brother, he should pause in the career of selfish seeking after that fame which he hopes will be the result of his gratuitous services.

Professional etiquette as practised in the days of our grandfathers is as defunct as our grandfathers themselves, and, unfortunately, nothing has arisen from its ashes to bind the medical profession together. It is the common custom now for a patient to suddenly leave his ordinary medical attendant without a word, and consult one who is called a "specialist" in this, that, and the other disease, and in nine cases out of ten the specialist thus consulted totally ignores the existence of the brother practitioner under whose care the patient originally was, unless it should happen that a personal friendship, or perhaps acquaintanceship, existed between them. It is quite the exception for the specialist to write about the case unless he has been apprised by letter from the doctor that the patient is coming.

The collections in workshops, which are now systematic in many cities, and swell the incomes of hospitals to a considerable extent, will cause in the not far distant future such changes in the management and government of these institutions as the members of the medical profession have neither expected nor deserved, and it behoves them quickly and earnestly to combine and stand up for their rights. A vast system of provident medical relief will thus be instituted, and the superior compeers of those who contribute the weekly pence will by degrees obtain the sole management of the institutions. The fact of having thus contributed will be estimated as a sufficing reason for applying for treatment, whether the disorder be accidental injury or acute or chronic disease, and whatever may be the weekly earnings of the person so applying.

It must be apparent that from the two causes I have described professional incomes must be greatly diminished, except among the favoured few, who have earned great reputations and are above necessity or care. It becomes a question whether it would or would not be wise for the honorary staff of these hospitals, which receive large sums annually from workshops, and on which the working men are largely represented on the board of management, to accept an annual honorarium for their services. They would certainly remain more independent without it; but, on the other hand, many who were able and willing to pay a fair fee for advice now take advantage of the hospital on the plea that they subscribe towards its maintenance, and are entitled therefore to its benefits.

Whichever way we look, there looms before us the dismal knowledge that the rank and file of the medical profession will in the not remote future scarcely do more than earn its bread and cheese. The St. John Ambulance Association, while doing a noble work in the cause of philanthropy, no doubt prevents many hundreds of pounds from lining the pockets of needy members of our profession; virtue is its own reward, and, in the case of those outside the members of the Army Medical Department, the only reward of those who assist in teaching first aid to the injured, with the exception of a few honeyed words tenderly uttered at public meetings as a vote of thanks to the lecturer.

What are the aims and objects of hospitals? First founded as houses of refuge for the sick poor, and for sick and injured persons without home or friends, they became by degrees centres of medical study, where the practice of medicine and surgery could be taught and learnt. Then came the question of their maintenance, and charitable people with superfluous wealth gladly came forward to their assistance and support; so that many of our largest hospitals are now richly endowed and have enormous incomes. Their expenditure, however, increases, and their managers, solicitous of any and every means to obtain funds, receive into their wards for payment persons who are quite capable of paying well for board and lodging and medical skill elsewhere. The managers, being anxious likewise that the institution with which they are connected shall be a paying concern, care not what the future of the doctors may be so long as their institution is popular and pays its way. If their balance-sheet be satisfactory, it matters not if the medical profession is pauperised.

I am, Sirs, yours faithfully,

MILNER MOORE, M.D. &c.,
Senior Surgeon to Coventry and Warwickshire Hospital.

Coventry, May 6th, 1889.

"COW-POX AND VACCINE LYMPH."

To the Editors of THE LANCET.

SIRS,—Under the above heading a letter appeared in *The Times* of April 30th from Professor Crookshank, in which he quotes a passage from a speech made by Dr. Buchanan at the special meeting of the Pathological Society (Dec. 15th, 1887), which is as follows: "They would now have an opportunity of testing the effects of vaccine from that source (the Wiltshire cow disease) on the human being, as they had long wished to do." The whole history of the outbreak, the character of the vesicles on the hands of the milkers, the production of vaccinal vesicles on inoculated calves, and the revaccination of the milker with negative results, completely established the fact that the disease was cow-pox. In your leading article in THE LANCET of Dec. 17th, 1887, you express the same opinion: "It is not a fortnight since proof was afforded, in the person of a farm lad, who had contracted it from the cow, that the disease observed by Professors Brown and Crookshank is indubitably cow-pox." Being present at that meeting, my interest was aroused, and I have followed the question very closely since. I have been looking forward to Dr. Buchanan's report which has just been published, as every pathologist must be interested to know if the old lymph stocks have become attenuated by long use, and therefore differ appreciably from the virus recently derived from the cow. I have read Dr. Buchanan's report, and to my amazement I find no mention whatever of any such experiment having been made. Considering how anxious Dr. Buchanan professed to be to find an outbreak of cow-pox in England, it is altogether inexplicable to me that there should have been no reference at all to the Wiltshire disease as a new source of vaccine lymph. I think that some explanation should be forthcoming. I am, Sirs, yours faithfully,

May 7th, 1889. H. H. TAYLOR.

CANCRUM ORIS.

To the Editors of THE LANCET.

SIRS,—I read with much interest the article in your last week's issue on the treatment of cancrum oris, and congratulate Dr. Yates and Mr. Kingsford on their very successful result.

At the Liverpool Infirmary for Children we have had during the last twelve months quite an unusual number of cases of cancrum oris, seven in all. While considering the high rate of mortality in cases of this nature, I was led to believe that if a more radical mode of treatment than usual were adopted a better result might in the majority of cases be obtained. In those cases which have come under my notice since forming this conclusion, I have as far as possible completely excised the diseased tissues until bleeding occurred, and then applied strong nitric acid. The members of the staff, under whose care the patients were, kindly permitted me to treat them. Of the seven cases above mentioned, four have completely recovered under this treatment, although in two of them the disease was very extensive; and in two of the three cases that terminated fatally extensive pneumonia existed as a complication; the third case died three months after admission from chronic septicæmia. If equally good results can be obtained by a less extensive excision and the application of corrosive sublimate, it certainly is the better mode of treatment, and I shall give it a fair trial the next opportunity I get. In the after treatment cleanliness is of great importance; the mouth should be frequently syringed out, and it is also well during the first week to give all food by means of the nasal tube.—I am, Sirs, yours faithfully,

R. W. MURRAY,
Senior House Surgeon, Liverpool Infirmary for Children.

May, 1889

THE COLLEGE OF SURGEONS AND ITS MEMBERS.

To the Editors of THE LANCET.

SIRS,—On my return from a holiday a few days ago, I saw Mr. Lawson Tait's letter of the 20th ult., and in justice to myself must ask for a short space to reply to it.

Mr. Tait states that I put words into his mouth which he never used at the meeting on April 3rd. I can only say that if the exact words quoted by me were not used by him, the equivalent of them most certainly was—a fact which can be vouched by many of those present at the meeting, and which to some extent is confirmed by Mr. Tait himself, by his elaborate critique on the "new conditions of admission to the examination." I agree with him "that it is mere nonsense to say that any Member can, after he has settled in practice, become a Fellow." In addition to the very many who have no ambition that way, there are many who have not the requisite industry, some possibly have not the ability; but the fact remains that the College does not place any harassing regulations or extra certificates in the way of the few who think it worth their while by extra expenditure of time and money to acquire the distinction, with the special rights and privileges pertaining thereto.

I am, Sirs, yours faithfully,

Birmingham, May 1st, 1889. F. MARSH, F.R.C.S.

DIPHTHERIA.

To the Editors of THE LANCET.

SIRS,—Dr. G. B. Longstaff seems to have shown conclusively by his laborious statistical investigations just published that diphtheria is a disease of the country rather than the town, and is introduced from the former to the latter. Mr. A. W. Blyth remarked many years ago that "the fact of its preference for high, open, and airy situations was extremely marked" in a certain epidemic. Dr. G. B. Longstaff appears to consider that certain domestic animals, such as poultry or pigeons, may be in some way concerned with this disease. We heard a short time ago that there was good reason to believe that cats were, by their prowling habits, agents in conveying the disease from person to person. These opinions from independent sources are noteworthy, and suggest the propriety of ascertaining, by a series of specific questions, the evidence of general practitioners throughout the country on this important matter. They only who have had to deal with outbreaks can by their local knowledge give sanction or otherwise to these suggestions—valuable as they undoubtedly are as far as they go. I am, Sirs, your obedient servant,

Weston Park, Crouch End, N. E. H. HARE, F.R.C.S.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Newcastle Infirmary and the Hospital Sunday Fund.

I AM happy to report that the rather unpleasant friction between the governors of the Royal Infirmary and the Hospital Sunday Fund has by a judicious adjustment been removed. The infirmary is to get £100 for every £1000 subscribed to the Sunday Fund in the first case, and before the *pro-rata* gift which it receives along with the other charities. In this way the infirmary receives a double distribution, and everyone will be pleased to know that this excellent charity is to be fairly, not to say favourably, treated.

Carlisle.

The Hospital Sunday Committee, having fixed Sunday, May 12th, for the annual collections, have issued their usual appeal for contributions. The institutions which will benefit are the Cumberland Infirmary, Carlisle Dispensary, Carlisle Fever Hospital, Silloth Convalescent Institution, Whitehaven Infirmary, and Workington Infirmary. As an evidence of the progress which has been made in Hospital Sunday collections, it may be stated that the answer to the first appeal in 1870 was about £500, while last year's realised over £1000.—There has been such an outbreak of measles in the Denton Holme district, under the Carlisle School Board, over 200 children being ill or absent from this cause, that the committee have decided to close the schools.—There is a clerical or typographical error in my last week's Carlisle note, caused by the omission of "or," which makes it read as if a woman had died in Carlisle in childbed for want of medical assistance, which was not the case. I only wished to hint at a probable catastrophe unless there was some better arrangements for night calls than appears to exist at present.

The Perambulator.

Dr. Maclagan, the medical officer of health to the Hexham sanitary authority, in his fifteenth annual report, condemns very strongly, as one great factor in the present excessive infantile mortality, the perambulator, which was pointed out by him in previous years as being productive of infantile inflammatory disease, cerebral and pulmonary; and he thinks the use of this vehicle should be strongly condemned unless under very exceptional circumstances.

Healthy Shields.

At the last meeting of the South Shields Town Council, Dr. Munro, the medical officer of health, reported that the death-rate for the past month was equivalent to only 13·7 per 1000 per annum. It was remarked that this was probably the lowest rate ever known in the town, though it has always stood high in point of health. It is fortunate in having an abundant and pure water-supply. South Shields is now placed on the list of watering places and circular towns of the North-Eastern Railway.

The Typhoid Outbreak in the County of Durham.

As regards the very serious outbreak of typhoid in the county of Durham, it is stated now that, although more than 300 people have been attacked, the disease appears to have reached its maximum; according to the usual law in epidemics, the later cases seem to be milder than those first attacked. Many of the cases have been distinctive of ordinary typhoid fever, while others have the characters of the specific pleuro-pneumonic fever recently described by Dr. Ballard in the Middlesbrough epidemic. Dr. Philipson of Newcastle is satisfied that the sanitary authorities are actively carrying out the medical instructions. On Saturday last Drs. Ballard and Page came down on behalf of the Local Government Board, and held an inquiry touching the outbreak, which appears to be at present confined to the villages on the right side of the river Wear. Chester-le-street, on the other side, appears to be free from the disease. As regards the water-supply, the samples examined by Mr. John Pattinson, the experienced analytical chemist of this city, have been pronounced pure; while Mr. Stock, the county analyst, is reported to have found sewage contaminations in the samples submitted to him. The Government inspectors have taken water from the different sources in the infected districts, to be examined by London experts.

Newcastle-on-Tyne, May 7th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

St. John Ambulance Association.

ON the 29th ult. a meeting in connexion with the Liverpool centre of the St. John Ambulance Association was held at the town hall, under the presidency of the Mayor, Mr. Cookson. It was stated by Mr. C. H. Green, the secretary, that since the formation of the centre eight years ago down to March 30th, 1889, the total number instructed was 3871, which with 303 at present under instruction made a grand total of 4174. Of these, 2975 had passed examinations and received certificates, 2328 being males and 647 females. In addition to these latter, 1486 certificates had been issued to the ladies' branch at the School of Cookery, which brought up the total number of certificated members to 4461. By the permission of the Watch Committee, the Liverpool police were being instructed in ambulance work as rapidly as they could be taught. Since the formation of the first class in 1882, instruction had been given and certificates granted to 687 members, about half the force. Of that number, 373 had passed three examinations and had gained the medallion. The Mayor then distributed the certificates to the successful candidates of the Exchange class, about fifty in number.

The Infectious Diseases Hospital.

The question of hospital accommodation for infectious diseases still remains unsettled. Two sites have been proposed, and, though negatived by the City Council, are being

revived again. Either scheme would cost between £60,000 or £70,000, and there is much reluctance among the city councillors even to discuss the matter. Owing to recent sanitary improvements in the city, the death-rate has been very low; infectious diseases have not appeared in an epidemic form, though in such a city as Liverpool a certain proportion must always be present. Hence, as there already exists hospital accommodation to a considerable extent for infectious diseases, many authorities, medical as well as lay, fail to see the necessity for any further extension of this. But in a seaport such as Liverpool, where contagious disease may be imported at any moment, it is well to be provided against such a contingency as an epidemic of infectious or contagious disease. On several previous occasions Liverpool has been found unprepared, notably in 1871 and 1872, and the result was far more costly than would have been the provision of hospital accommodation.

The St. Helens Patients and the Pasteur Treatment.

On Jan. 23rd, 1889, nine children aged from three to fifteen years, and a man aged forty-six, were bitten by a dog in St. Helens, all within twenty minutes or half an hour. The dog was killed, and on a post-mortem examination the stomach was found full of straw, sticks, &c., the membranes of the cord were congested, and there were some small hæmorrhages and soft grey patches in the upper part of the cord and medulla, also some congestion of the lungs. From the fact of the dog running amuck in the way he did, taken in conjunction with the post-mortem appearances, Dr. Barron considered that the animal was certainly rabid, and on his recommendations the Health Committee of St. Helens resolved to send all the children, if their parents should be willing, to Paris, for treatment at the Pasteur Institute. Accordingly, the children left for Paris on the 25th, and were first inoculated on the 26th. The man also went to Paris two days later. Three rabbits inoculated with portions of the dog's medulla by Professor Horsley at the Brown Institution died with typical symptoms of paralytic rabies, the incubation period being twelve days, or two days below the average. M. Pasteur had but little hope of saving the three youngest children, who were all badly bitten about the head and face. The youngest child, aged three, suffered from measles with bronchitis when in Paris. On the 29th ult., fourteen weeks after the bites, all the children and the man were in good health. Considering the large number bitten, the severity of the bites in several cases, and the proved rabidity of the dog, this case seems to augur favourably for the utility of the Pasteurian treatment. The risk of any suffering after an interval of three months is extremely slight.

The Bootle Hospital.

A bazaar was held in the Town Hall, Bootle, on the 1st, 2nd, 3rd, and 4th inst., for the purpose of clearing off the debt on the hospital incurred in renovating the old wing, amounting to about £1500. Bootle has grown within the last forty-five years from a village with three thousand inhabitants to a corporation borough with fifty thousand persons, this number rapidly increasing. As might be expected, the medical charity has also expanded from a dispensary to a hospital, and has 103 beds. The bazaar was under most influential patronage, and at the close of Saturday's sale the sum of £3544 had been received. The enthusiasm evoked has been unprecedented, and the bazaar is to be continued on the 6th and two following days.

Children Suffocated in Bed.

Referring to the case alluded to in a previous letter, in which a man and woman were committed for trial by the city coroner for the manslaughter of their illegitimate child, the stipendiary magistrate has decided that there is no case against the prisoners, and so far as he is concerned they have been discharged. As they will be brought up at the assizes on the coroner's warrant, it would be improper to comment on the case any further, beyond expressing a hope that other judges besides Justice Charles may express their opinions as to the serious frequency of these so-called "overlying cases."

Liverpool, May 6th.

VAUXHALL PARK.—The amount required for the purchase of the Lawn and Carroun House Estate, South Lambeth-road (the site of the proposed Vauxhall Park), having been obtained, the Lambeth Vestry has sanctioned the purchase of the lands for the sum of £43,500. The London County Council have undertaken to maintain the park after its adaptation as a place of public resort and recreation.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

The Edinburgh Dental Hospital and School.

ON Saturday last the amalgamation of the Dental Hospital teaching department with that of the Royal Infirmary was completed by the formal opening of the new hospital in Lauriston-lane. The new arrangement will make it easy for students attending the Royal Infirmary to share in practical dental work of all kinds, as well as in the infirmary clinical work, as the dental department is now just at the other side of the road. Every appliance both for the comfort and better treatment of patients, and for facilitating the work of teaching the students, has been introduced into the hospital, which is now equal, if not superior, to any similar institution in the kingdom. In the stopping department there is a splendidly lighted hall, fifty feet long and half that in breadth, in which are placed twenty chairs, and others may be added (up to fifty) as the number of students increases. At present in the various departments there is ample accommodation for sixty students, who may receive a complete course of dental, surgical, and mechanical instruction. It may be mentioned that in the first year of the establishment of the old hospital in Chambers-street, 4500 patients sought treatment. Last year this number had risen to 8148; and during the ten years the hospital has been in existence no fewer than 58,967 patients have been treated. The Dean, Mr. W. Bowman Macleod, at the annual general gathering of the Odonto-Chirurgical Society, held the evening before the opening of the new school, commented very justly on the fact that during this ten years they had received in contributions £1374, of which only about £600 had been contributed by the general public. He argued that such an institution as theirs had a greater claim on the sympathy and pecuniary support of the public than this would indicate, for not only did they ameliorate the sufferings of the poorer classes, but they trained up for the benefit of the richer class a body of young practitioners, from whom they would get better service than ever their forefathers received.

Queen Victoria Nurses' Institute, Scottish Branch.

For some time past the work of this branch of the Queen Victoria Nurses' Institute has been going on. Miss Peters, late superintendent of the Royal Hospital for Sick Children, has been appointed at the head of the branch. Three nurses and district probationers have been selected, and a fourth will very shortly be added. There are already several applications for nurses trained in the institute, but these, of course, cannot be met for some time yet, although some of the nurses now engaged in the work have received a couple of years' training in the wards of the Edinburgh Royal Infirmary, and will therefore be ready for independent work in a comparatively short time. If properly managed, and if kept entirely free from any "ism," this institute has a most useful career before it; and it is to be earnestly hoped that all denominational influence, whether Established or Dissenting, will be most rigidly excluded. The stumbling-block in many such institutes has been the tendency to degenerate into something nearly approaching a sisterhood. This should not be the case in Scotland. The public has been very generous so far, and it is expected that there will be little or no difficulty in extending very materially the sphere of operations of such an urgently needed body of trained nurses.

Royal Society of Edinburgh.

At the Royal Society, yesterday evening, Dr. Buchan, of the Scottish Meteorological Department, gave a most interesting communication on the results of his analysis of the meteorological observations of the *Challenger* expedition. He exhibited maps, on which the isothermal and isobaric lines and areas in various parts of the world were indicated, and showed how these affected the winds and climate generally of these regions. To those who make a study of climatology, these observations, which are to appear in the reports published by the *Challenger* Commission, will be of inestimable value. Mr. Irvine, F.C.S., and Dr. Sims Woodhead read a paper on the Secretion of Carbonate of Lime by Animals, in which several interesting chemico-physiological and pathological points were raised for discussion. The other papers communicated were one by Mr. D. McAlpine, entitled "Continued Observations on

the Progression and Rotation of Detached Ciliated Portions of Bivalve Molluscs (Unio and Ostrea)," and a preliminary note on the Composition of Sea-water by Dr. John Gibson.

Lectureship in the Newcastle Medical School.

Amongst those mentioned as candidates for the lectureship on Anatomy in the Newcastle Medical School is Dr. Howden, who has for a considerable period acted as demonstrator with Professor Sir William Turner in the Anatomical Department of the University of Edinburgh.

Edinburgh, May 7th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Death of Dr. Robert McDonnell.

DEATH has been busy among the profession in Dublin of late, but seldom has it been my lot to record the decease of so distinguished a member of our body as Dr. Robert McDonnell. His death, so unexpected—for he was the embodiment apparently of physical health and vigour,—has come with a terrible shock to all who had the pleasure of being acquainted with him, and there is a universal expression of regret at the untimely decease of a thoroughly honourable gentleman, a reliable friend, and a distinguished surgeon.

Royal College of Surgeons.

Dr. William Frazer, ex-member of Council, Royal College of Surgeons, will be a candidate for the vacancy created on the Council by the death of Dr. Robert McDonnell. He has always been well supported, but whether he will be opposed is at present uncertain.

King's Professor of Midwifery, Trinity College, Dublin.

The College of Physicians, in whose hands the appointment rests, will receive applications up to July 12th for the chair of Midwifery in the School of Physic, Trinity College. The election will be held on July 26th for a term of seven years. The emoluments consist of £100 per annum, the fees for clinical lectures in Sir Patrick Dun's Hospital, and such proportion of the class fees as may be arranged by the President and Fellows. I am still of opinion that Dr. Macan, Master of the Rotunda Lying-in Hospital, will be the successful candidate, but there are many who believe that Dr. Horne has an excellent chance of being appointed. It is stated that a representative of the College of Physicians on the General Medical Council will shortly be appointed in the room of Dr. Aquilla Smith.

Colleges of Physicians and Surgeons' Conjoint Scheme.

Changes have been made in the Fourth or Final Examination which have recently been referred to, and now the Colleges have at present under consideration certain modifications in the regulations of the First, Second, and Third Professional Examinations under the Conjoint Scheme, which, when complete, will, I am informed, be very acceptable to candidates.

Ether-drinking.

At a meeting of the General Synod of the Church of Ireland last week, a resolution was adopted to the effect that the Synod reaffirms its petition of last year praying that the unrestricted traffic in ether as an intoxicant be placed under legal control. The Archdeacon of Derry, in seconding it, said that in the north of Ireland they had often to witness the debasing effects of the use of ether upon promising members of different denominations. The efforts to encourage the sale of it were such that children were found going to the parish school at ten o'clock in the morning with the smell of ether on their lips.

Cork South Infirmary.

In the Queen's Bench Division last week a motion was made to make absolute a conditional order for an information, in the nature of a *quo warranto*, at the relation of Dr. Francis Murphy, exhibited against Dr. Nathaniel H. Runciman, to show by whose authority the latter claimed to be resident surgeon of the Cork South Infirmary. The election was held in February last, and resulted in a poll of seventeen for Dr. Runciman and eleven for Dr. Murphy. The latter objected to ten votes given for his opponent by the clerical trustees and by those nominated by the grand jury; on the other hand, Dr. Runciman contended that five of the votes recorded for Dr. Murphy were invalid, as being those of the members of Parliament for five of the divisions into which the county was divided by the Redistribution of Seats Act, 1885. The Lord Chief Justice struck off the votes objected to by both sides, leaving Dr. Runciman undisturbed by a majority of one vote. No costs were awarded to either party.

The guardians of the North Dublin Union have passed a resolution, thanking Dr. Burke, Local Government Board Inspector, for his recent valuable report on the various North City Dispensaries, and for the lucid manner in which he has pointed out how certain reforms might be effected. By his suggestions the ratepayers will be saved a large amount of taxation, and the sick poor attending the dispensaries will receive increased benefit.

Dublin, May 7th.

BELFAST.

The Presidentship of Queen's College.

The Rev. Thomas Hamilton, D.D., has been appointed President of Queen's College in succession to the late Dr. Porter. Dr. Hamilton studied at Queen's College, Belfast, where he had a distinguished career. In 1859–60 he was first literary scholar; he was also a holder of a scholarship in the next two years; and finally he was senior scholar in natural history. In the Queen's University he graduated at the B.A. and M.A. examinations with first-class honours, and on both occasions won the gold medal. He has been an examiner under the Intermediate Education Board of Ireland.

Death of R. B. Davidson, M.D.

Great regret was felt in Belfast and throughout co. Down at the announcement on Monday of the sudden death of Dr. Davidson of Rademon. It seems that he retired to his room in perfect health on Saturday night, and about 1.30 A.M. on Sunday morning he fell from his bedroom window to the ground below, where he was found by one of his servants. He was quite conscious, and after having been carried into the house, Dr. Nelson (Downpatrick) and Mr. Carlisle (Crossgar) were soon in attendance. He said to the medical men that he had received a bad fall, and that his arm was broken. His pulse was almost imperceptible, and his body cold, and he died at 4.30 A.M. on Sunday morning. At the inquest, Mr. S. C. Davidson (cousin of the deceased) said he had stayed in his bungalow in India, and that he had seen him walk in his sleep, and had had occasion twice to guide him into bed. All the facts corroborate the view held by the medical attendants that the accident was due to somnambulism, and the jury gave a verdict that "he died from injuries accidentally received by falling from the window of his bedroom while in a state of somnambulism." Dr. Davidson was born in Drumaness House, Ballynahinch, in 1841. He received his collegiate and medical training in Belfast, and when only eighteen he had passed all his medical examinations. In 1860 he went to India, and practised in Cachar for a time, but subsequently he abandoned the medical profession and became a very successful tea-planter. In 1879 he returned to Ireland, and in 1881 was appointed agent for Mr. Sharman Crawford. Dr. Davidson was a man who had a very large circle of friends in Belfast and throughout co. Down, and, being a man of the most amiable and kindly disposition, he was a very great favourite. Great sympathy is felt for his widow, who was a daughter of the late Dr. Malet, Senior Fellow and Librarian of Trinity College, Dublin. He leaves five children. He was buried on Wednesday in the family burying-ground, Magheradroll.

Belfast, May 7th, 1889.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Population of Paris.

THE *Revue Rose* gives the following interesting information on the population of Paris. At the last census—that is to say, in 1886—Paris contained 2,344,450 inhabitants, very unequally divided on this vast surface. The centre does not increase much, but the Faubourgs augment, or have augmented, in the proportion of 85 per cent. In the outskirts the increase is still more marked, having attained 139 per cent. The city itself contains 1,103,014 males and 1,157,931 females. The number of true

Parisians—that is, of persons born within the boundaries of the city—is 749,188, or a little more than a third. Hence the conclusion that, of three residents, only one is a genuine Parisian. The other two-thirds are composed of Normands, Auvergnats, natives of Provence, and Belgians. To these may be added 180,000 foreigners, composed of English, Spaniards, Americans, Turks, and Chinese.

Overcrowding of Paris Hospitals.

The overcrowding of the hospitals in Paris is occupying the attention of the public. According to a report published by the Assistance Publique, there are at present in the wards 850 stretchers which are placed between the regular beds, much to the prejudice of hygiene and to the wellbeing of the patients. M. Louis Gallet, director of Lariboisière Hospital, has published a pamphlet on the subject, and what he states about this hospital is applicable to all the others. At Lariboisière, the situation, he says, has become very difficult. The wards were arranged for 661 beds for adults and 43 cots for children, but for adults alone the supplementary beds sometimes exceed 200 per day. Under these circumstances the institution is no longer a hospital, but rather an ambulance. The movement of the population exercises certain curious influences. For instance, it shows the action exercised by the public fêtes on the minds of individuals more or less seriously afflicted with divers affections. At the approach of the national fête of July 14th, the number of the inmates of the hospital is considerably diminished; this diminution, manifestly due to a simple suggestion, is maintained during a week; then the material consequences are produced, the number becoming again increased, and sometimes exceeding that of the original occupants. This increase takes place the day after the fête, the reason of which may well be imagined. As regards the arrangements of the wards and services, the Lariboisière Hospital would still remain a fairly perfect type of a hospital, if the proper number of beds—viz., thirty-two to thirty-four in each ward—were adhered to. But this is commonly exceeded, the ward is generally crowded, and constantly contains forty-four beds. Too frequently even this figure rises, and it mounts up to fifty and even to fifty-five, so that at all times the service becomes quite insufficient. The proportion of foreigners treated in the Paris hospitals is also very considerable, so much so that a hospital physician was once heard to say that all languages were heard in his ward except French. This fact would give an idea of the enormous expense to which the city of Paris is put for the accommodation of this cosmopolitan population. The departments in the provinces also contribute largely to the overcrowding of the Paris hospitals. To remedy this state of things it would be desirable to clear the hospitals of chronic or incurable cases, in order to make room for acute affections. The experiment has been already partially tried, but even the asylums, such as Bicêtre, Salpétrière, and Ivry, have become so crowded that there is never a vacant bed to be found in them. M. Gallet suggests that the number of convalescent hospitals should also be considerably increased and placed outside the town, to which the infirm and chronic cases may be sent, thus relieving the hospitals in the great centres.

Sulphurous Acid as a Disinfectant.

MM. H. Dubief and J. Bruhl lately communicated a note to the Academy of Sciences on their joint bacteriological researches on the disinfection of certain localities by gaseous substances, and in particular by sulphurous acid. The authors undertook these experiments at the laboratory of the Hôpital Cochin, and, after having tried different substances, the results obtained led them to the following conclusions:—1. Gaseous sulphurous acid has an evident microbicide action on the germs contained in the air. 2. This action is particularly manifest when the medium is saturated with watery vapour. 3. Sulphurous acid acts upon the germs of bacteria. 4. Employed in a pure state, it may, when its action is prolonged, destroy germs, even in a dry state.

Health of French Troops in Tonquin.

Intelligence has been received to the effect that the sanitary condition of the troops at Tonquin is anything but satisfactory. By the latest reports there have been about 1400 patients under treatment in the hospitals. This is the more unfortunate as it was then the cold season, and the number should have been considerably less.

Paris, May 7th]

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The German Surgical Congress.

THE eighteenth Congress of the German Surgical Society met here last week. It was opened in the hall of the University by the President, Professor von Bergmann, who, after referring to certain aspects of the illness of the late Emperor Frederick, gave an account of the members who had died during the past year. The rest of the proceedings of the first day were chiefly of a business character. The series of scientific lectures was opened by Professor von Esmarch, who spoke on the causes and diagnosis of cancer, especially of the tongue and the lips. He frankly owned that science is still often at fault as regards both the causes and the diagnosis of cancer. More than once had tuberculous or syphilitic tumours been mistaken for cancer, and such a mistake was often fatal. Science must aim at giving an indubitable diagnosis before the operation, and the removal of a part of the tumour for microscopic examination was a valuable means to this end. On the second day of the Congress the subject of Prof. von Esmarch's lecture was discussed, and a most interesting case of myxœdema was shown, in the discussion of which a prominent part was taken by Mr. Horsley of London. Dr. Bramann of Berlin showed three little boys suffering from symmetrical gangrene, and spoke on the cases. Schinzinger of Freiburg caused a sensation by proposing to secure a permanently good result of operations for carcinoma mammæ in young patients by extirpating the ovaries, and thus producing premature atrophy of the glandular tissue of the breast. After communications from Sendler of Magdeburg regarding an angioma cavernosum pendulum observed on the mamilla, and from Helferich of Greifswald on partial resection of symphysis for removal of a vesical cancer, König of Göttingen exhibited calculi produced in the kidneys of dogs by feeding them with oxamide. The morning sitting was concluded by a report from Krause of Halle of von Volckmann's method of treating resections of the hip-joint. The afternoon sitting was opened by a lecture from Thiersch of Leipsic on excision of nævus. The next speaker was Angerer of Munich, who spoke on the diagnosis and operative treatment of stenosis of the pylorus. Lanenstein of Hamburg gave his own experience on the subject, and the sitting was closed by a lecture from Schlange of Berlin on ileus. On the third day, Wehr of Lemberg reported on the inoculation of cancer from one dog to another; Schmidt of Stettin showed a man whose larynx was totally extirpated two years and a half ago, and who is now well and able to speak intelligibly; Kümmel of Hamburg expounded a new osteoplastic operation on the foot; Oppenheim of Berlin showed five workmen suffering from traumatic neurosis; Krause of Halle spoke on two cases of acute catarrhal suppuration of joints; Petersen of Kiel on arthrodesis; Lanenstein of Hamburg on total extirpation of the knee-joint; Krause of Halle on the treatment of scaly sarcoma; Riedinger of Würzburg on malformations of joints; Rydygier of Krakaw on the suppuration of the inner parts of the nose; Trendelenberg of Bonn on the treatment of flat-feet and crooked noses; Fischer of Breslau on trephining for brain tumours; Höftemann of Königsberg on rare cases of trephining; and Gerstein of Dortmund on the closure of perforations in the skull. Küster of Berlin also spoke on this last subject, and Horsley of London on trephining. In the afternoon von Bergmann was re-elected President for 1890. Mikulicz of Königsberg communicated his experience in the operative treatment of perforative peritonitis, and was followed on the same subject by König of Göttingen, who mentioned the extensive experience of American surgeons in this field, owing to the free use of the revolver in the United States. Leser of Halle then spoke of a singular case of actinomycosis, and Pietrzikowsky on the relations of pneumonia to strangulated hernia. Saturday, the last day of the Congress, was devoted, like the preceding ones, to a series of reports, lectures, demonstrations, and discussions on subjects of deep interest to surgeons and of high moment to mankind. The Congress was closed by the President at 4 P.M. I may mention, in conclusion, that the Empress Augusta, as is her yearly wont, did not fail to show her interest in the discussions of the Congress. Billroth of Vienna, Thiersch of Leipsic, Horsley of London, Bardenhener of Cologne, von Bergmann of Riga, and Schmidt of Stettin, had the

honour of being presented to Her Majesty by Professor von Bergmann, as President.

The New Berlin City Hospital.

Professor Albert Fränkel has been appointed head of the medical department and Dr. Werner Körte of the surgical department of the new hospital which is in the course of construction for the city of Berlin. Professor Fränkel is about forty years of age, and is a nephew and pupil of Ludwig Traube. He has practised since 1872, was assistant, first to his uncle and then to Professor Leyden, in the first medical department of the Charité, and established himself as private lecturer on special therapeutics and medical diagnosis in the university here about ten years ago. He edited the fourth volume of Traube's collected writings, and has published many clinical essays of his own. He has devoted himself recently to bacteriological investigations, and has finally solved a much-disputed question by the discovery of the pneumonia coccus, which bears his name. Dr. Werner Körte is a son of a well-known Berlin physician, and was for several years assistant to the late Professor Wilms at the Bethany Hospital here. His age is about thirty-five.

Underground Water and Bacteria.

Underground water and bacteria were the theme of a recent lecture delivered by Dr. C. Fraenkel, assistant to the famous bacteriologist, Dr. Robert Koch, in the Hygienic Institute here. The gist of the lecture was that the underground water of Berlin is free from bacteria, that this surprising fact is due to the great filtering power of the ground, and that consequently the water drawn from the artesian wells is perfectly wholesome.

Anatomy in the Year 1304 A.D.

Among the manuscripts in the Royal Library here Dr. Paget, of this city, has discovered a manual of anatomy in Latin of the year 1304, which has never yet been printed. Its author was Henri de Mondeville, surgeon in ordinary to Philip the Handsome, and teacher of anatomy and surgery in Montpellier and Paris. In the main he follows Galen and Avicenna, who derived their anatomical knowledge from the dissection of animals, not of human beings. The anatomical contents of the manuscript are accompanied by a running physiological commentary. The introductory exhortation lays emphasis on the importance of anatomical knowledge to the surgeon. Henri de Mondeville was a native of a little town near Caen, in Normandy. He studied medicine at Montpellier and surgery in Paris. On the recommendation of his teacher, Jean Pitard, he was appointed surgeon to Philip the Handsome, under whose brother, Charles de Valois, he went as army surgeon to Arras and to England. He died of lung disease about 1318.

Narrow Chests.

The Prussian army surgeons have been ordered to measure the chests of recruits, especially of narrow-chested ones, every four weeks. All are to be regarded as narrow-chested the circumference of whose chests is less than half the length of their bodies. Narrow-chested men whose chests are not widened by drill are to be regarded as predisposed to tuberculosis, and to be discharged as soon as possible, that they may not infect healthy soldiers.

A New Medical Periodical.

A new medical periodical of an official character has been published here recently under the title of *Klinisches Jahrbuch* (Clinical Annual). Its editor, who is responsible to the Minister of Religion, Education, and Medicine, is Professor Adolf Guttstädt, of the Prussian Statistics Office, and he is assisted by Professor Skrzeczka and Dr. Schönfeld, of the Medical Department of the Ministry of Religion &c.

Berlin, May 1st.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Saccharin Question.

MR. ANTON STIFT recently made some experiments to ascertain the action of saccharin, at the chemical control station of the Austrian Society of Beet-sugar Manufacturers. He found that 98·68 per cent. of the saccharin taken is eliminated by the kidneys. Medium doses of saccharin produce a mild purgative action. With regard to the influence of saccharin on the digestion of food, he obtained by his experiments the following results. In the absence of saccharin, 69·17 per cent. of meat was digested, while by adding 0·1 gramme of saccharin 51·18 per cent., and with 0·2 gramme of saccharin only 43·09 per cent. was digested. The percentage of egg substances digested in a normal state—viz., 98·45 per cent.—was lowered by the addition of 0·1 and 0·2 gramme of saccharin to 96·69 and 88·68 per cent. respectively. Of caseine 98·78 per cent. was digested normally, but in the presence of 0·1 and 0·2 gramme of saccharin only 79·42 and 72·33 per cent. were digested. The same unfavourable results were obtained by experiments with starchy matters, thus showing the inhibitory action of saccharin on digestive fermentations. The Oberster Sanitäts-Rath (Upper Board of Health) will before long also have to deal with the saccharin question, and Professor Vogl, one of its members, is now engaged in studying the matter, as there is a strong agitation among the beet-sugar manufacturers against this new product of chemical industry.

The Vision of Insects.

According to a communication made by Professor Siegmund Exner, the well-known Vienna physiologist, insects get by their composite eyes a single erect image of exterior objects, and their dioptrical apparatus acts like an astronomical telescope. By Exner's experiments, which were made on Lampyris splendidula, the old theory of the mosaic vision of insects is definitely disproved. It is also interesting to note that the pigmented layer surrounding the crystalloid bodies of the insect's eye is elongated by the action of light and shortened in darkness.

The Empress of Austria.

According to recent reports from Wiesbaden, the health of the Austrian Empress has much improved since she underwent masso-therapeutical treatment, which will be continued till May 23rd. Disorders of nutrition, it is well known, are the principal troubles affecting the Empress, which are caused no doubt by the deep depression arising out of the sad events connected with the death of her son.

The Health of Professor Breisky.

The condition of Professor Breisky, who for some months past has been suffering from an abdominal disease, has not changed to any great extent during last week. The purulent discharges caused by a perforation in the upper portion of the rectum were examined microscopically, without giving a better clue for diagnosis.

Professor Billroth.

Professor Billroth, on his return to Vienna from Berlin, where he had been attending the meetings of the German Surgical Association, had an enthusiastic reception accorded him. The celebration of his sixtieth birthday, which falls on April 26th, had been postponed until May 6th, on which date the Professor resumed his clinical duties in Vienna. He was presented with a gold medal with his portrait on one side and an appropriate inscription on the other, and in the evening a grand banquet was given in his honour. In returning thanks to the crowds of professors, physicians, and medical students for the kind welcome accorded to him on his return home, Professor Billroth gave a short sketch of the development of modern surgery, and of the part taken by the German surgeons, especially by his own teacher, von Langenbeck, in the progress of surgical art. The fundamental work of French and English surgeons was also briefly alluded to. He expressed the opinion that the present century would be marked by technical progress in connexion with natural science. Till now, he said, surgery had progressed in an anatomico-physiological direction; in future its progress must be in a chemical direction, and the treatment of tuberculosis from the chemical point of view might be especially regarded as the next problem of surgery.

The Adulteration of Food.

The Bill against the adulteration of food has been discussed by the special committee of the Austrian Parliament, and it will be considered in the House during the summer session. In accordance with this Bill, control stations for examination of food will have to be established by the State.

Vienna, May 8th.

MEDICAL MAGISTRATE.—Dr. Arthur Flint of Westgate-on-Sea has, on the recommendation of Earl Granville, been placed on the Commission of the Peace for the liberties of the Cinque Ports.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on Thursday, May 9th. The minutes of the quarterly meeting held on April 11th were read and confirmed.

Mr. R. M. Craven was admitted as a Fellow of the College.

Mr. Jonathan Hutchinson, jun., was introduced, and received the Jacksonian prize.

The Council adopted the following as the subject for the next Collegial Triennial Prize:—"The Anatomy of the Third, Fourth, and Fifth Cranial Nerves in the Vertebrata, including an account of their development and relations to the sympathetic system."

The ninth and final report of the Committee on the Mode of Election to the Council was approved and adopted, giving effect to the new bye-laws, concerning which a letter from Mr. Wilde was read, stating that the Secretary of State for the Home Department was willing to approve the formulæ, with certain restrictions; and that the formulæ, with the necessary alterations, would be prepared for signature.

Mr. Berkeley Hill and Mr. Pearce Gould were appointed as the representatives of the College on the General Committee of the International Congress of Hygiene and Statistics for organising the next meeting, to be held in London in the year 1891.

Mr. Jeremiah McCarthy was elected a member of the Court of Examiners, in place of Mr. Wood, resigned.

Messrs. Power, Hutchinson, and Hill were elected as a Committee for the nomination of Professors and Lecturers at the June Council.

In reference to a communication from Her Majesty's Ambassador at Constantinople respecting the restricted recognition by the Turkish authorities of the diploma of the College, and suggesting that the College should give an official declaration that Members are allowed to practise medicine as well as surgery in the United Kingdom, it was agreed that the Secretary of State be informed that the Council had no power to make the declaration, but that, owing to the conjoined examination system, the disability of Members to practise medicine will not in future exist.

In reference to a letter from the Charity Organisation Society, forwarding a copy of a petition to the House of Lords, praying for a select committee of inquiry into the administration of hospitals &c., the Council decided that it was not in their province to take any action in the matter.

The President reported that H.R.H. the Prince of Wales had undertaken to unveil a statue of Her Majesty at the Examination Hall at 12 noon on Friday, May 24th.

An extraordinary meeting of the Council will be held on Thursday, May 16th.

Obituary.

ROBERT McDONNELL, M.D., F.R.C.S.I., F.R.S.

IT is with sincere regret we chronicle the death of this eminent member of the profession in Dublin, which unexpected event took place on Monday morning at his residence in Merrion-square. His death was very sudden, and is supposed to have been due to aneurysm. Some time since he suffered from hæmoptysis, accompanied by neuralgic pains down the arm, and he took a holiday for six weeks, returning home apparently in sound health. He attended a meeting of the Council of the Royal College of Surgeons on the 2nd inst., and said to a friend that he never felt better in his life. The deceased was no ordinary member of our profession; on the contrary, his reputation extended far beyond the limits of his own country, and he was regarded, and justly, as an eminent and distinguished surgeon. Further, his character was scrupulously upright and honourable, and his untimely decease is deplored by the community at large, and by his professional brethren in particular. Dr. McDonnell was born in 1828. He was an apprentice of Richard Carmichael, and graduated in medicine in Trinity College in 1850, obtaining the Fellowship of the Royal College of Surgeons of Ireland in 1853. He was an examiner in the Royal College of Surgeons, which post he resigned after some time in order to become a candidate for the vice-presidency in 1876, and the following year he was duly elected President. In 1885 he was elected President of the Royal Academy of Medicine in Ireland for a term of three years, and was succeeded last October by Dr. Gordon. He belonged to many scientific and medical societies, and in 1865 was elected a Fellow of the Royal Society. For ten years he acted as medical superintendent of Mountjoy Government Prison, and on his resignation transferred his pension yearly to the funds of the Royal Medical Benevolent Fund Society of Ireland, in which he took a great interest. He was appointed a member on various Royal Commissions, and served twice as a member of the Council of the University of Dublin. His contributions to scientific medicine and surgery were numerous and of a very high order, among them being his lectures on the Physiology of the Nervous System, on the Functions of the Liver, on the Physiology of Diabetic Sugar in the Animal Economy, and on the operation of Trephining the Spine in cases of Fracture, for which latter he was an ardent advocate. He was connected with Jervis-street Hospital, which he left when selected as lecturer on anatomy and physiology in Steevens' Medical College and surgeon to that hospital; but after some years returned to the surgical staff of Jervis-street Hospital, to which he belonged at the time of his death. Dr. McDonnell in early professional life served during the Russian war, and for his services received a medal and clasp and the Turkish medal. He married twice; his second wife, who was the daughter of Sir Richard McCausland, surviving him.

SURGEON-MAJOR F. A. TURTON.

THIS gentleman died in Birmingham on April 30th, 1889, aged fifty-two years, at the residence of Captain Stoneman, Edgbaston, and was interred on May 3rd in Witton Cemetery. The funeral service was held in St. Martin's Church, the parish church of Birmingham, previously, and was attended by Colonels Burke and Gilmer, Majors Birch and Roe, Surgeons-Major Emerson and Black, Captain Stoneman, and the men of the recruiting staff and medical staff corps belonging to the garrison.

Dr. F. A. Turton was born in 1837 in the West Indies, and went through his medical education in Edinburgh, where he obtained the diplomas of L.R.C.S. and L.M. Ed. in 1858. He subsequently in 1867 received the diplomas at Edinburgh of L.R.C.P., F.R.C.S., and L.M., and afterwards obtained the degree of M.D. of Heidelberg. He entered the army in 1858 as assistant surgeon, was promoted to be surgeon in 1873 and surgeon-major in 1874, and had retired from active service not many weeks before his death. He had served in the 11th and 23rd Regiments through the Ashanti war in 1873–74, having been present at the actions of Amoaful, Ordahsu, Coomassi, &c., for which he received the medal and clasp; and had also been for some years in India. Latterly his health had become impaired by the advent of Bright's disease, and the fatal issue was hastened by the affection of the heart which ensued.

JAMES LATTEY, M.R.C.S., L.R.C.P.

WE record with regret the death of the above gentleman, which took place on Thursday, April 18th, at his residence, 23, St. Mary Abbott's-terrace, Kensington.

The deceased was the son of the late Dr. Healy Lattey, and was but forty-seven years of age. He was educated at St. George's Hospital, and on qualifying was duly elected to a house surgeoncy. On leaving St. George's he entered on general practice, and, establishing himself in Kensington, soon gathered round him a large *clientèle* of patients and friends. Notwithstanding the fact that from youth he had suffered from mitral disease (the result of rheumatic fever), for twenty-two years he led a very useful and active life. In June, 1887, as a result possibly of overwork, he was suddenly seized with right hemiplegia, and his career of professional activity terminated. The paralysis was from the first so complete, and the aphasic symptoms so marked, that the prognosis was extremely grave. Some recovery of power took place at a later date in the leg, and the aphasic symptoms to an extent improved, but the improvement was always very limited and relapses were

frequent. He gradually succumbed to cardiac complication, and death could in his case be looked upon but as a release from suffering. Throughout his illness, which was nearly of two years' duration, he bore his infirmity without complaint and with manly fortitude and resignation. In address he was always courteous, and in his dealings upright and just. To his patients he was ever considerate and kind. He leaves behind a large circle who will long mourn their loss.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen, having conformed to the bye-laws and regulations and passed the required examinations, were admitted Licentiates at the last meeting of the College:

*Adams, H., St. Bart.'s and Melbourne.
*Agnew, E. D., St. Barthol.
Anson, G. E., Camb. and St. Thos.
*Antrobus, E., Edin. and London.
Arkwright, J. A., St. Barthol.
Baker, C. E., St. Bartholomew's.
Barker, G. H., Bristol.
Barnett, L. E., Edin. and Middx.
*Becker, J. E. A. G., St. Barth.
Bell, G. A. S., Westminster.
Bennett, L. H., St. George's.
Betts, F. B., Westminster.
*Betts, R. S., Charing-cross.
*Booth, J. B., Guy's.
*Branson, W., Sheffield.
*Browne, H., Middlesex.
Browne, H. H., Univ. College.
*Charpentier, A. E. L., Durh. and St. Thomas's.
Clough, J., Leeds.
Coates, W. H., Lond. and Durh.
Cole, R. H., St. Mary's.
*Cooke, A. W., Charing-cross.
Cooke, F. H., University Coll.
Cooper, A. D., Bombay and Univ. College.
Cory, F. G., London.
*Cotton, J., Liverpool.
Court, A., Middx. and Camb.
*Daniell, H. P., St. Barthol.
*Davar, F. S., Bombay.
*Darlow, A., King's College.
Davidson, W. M., St. George's.
*Davis, G. C., St. Mary's.
Davis, W. H., St. George's.
*Doyle, H. M., London.
Drysdale, J. H., St. Barth. and Cambridge.
*Duncan, S. V., King's College.
Edelstein, E. A., St. Barthol.
Edmonds, H. A., Guy's.
Ellerman, C. H. W., Heidelberg and Charing-cross.
Evershed, A. R. F., Guy's.
*Fardon, J. H., Bristol.
Féré, G. A., Toronto and Middx.
*Foster, W. E., St. Barthol.
*Freeborn, J. C. R., St. George's.
Girling, C. J., Guy's.
Glaeser, E. B., Edinburgh.
Green, H. W. G., Westminster.
*Grieves, T. A., St. Mary's.
*Griffin, J. H., Dublin.
Griffiths, C. A., Bristol.
*Grose, J. S., Guy's.
*Guinane, J., Toronto & St. Geo.'s.
Haines, F. H., Univ. Coll.
Hall, A. C., Edin. and Lond.
Hall, A. J., St. Bartholomew's.
*Hamilton, C. D., Univ. College.
Harford-Battersby, C. F., St. Thomas's.
Harold, J. P., Charing-cross.
Henvy, W., St. Mary's.
Herbert, C. H., St. Barthol.
Hick, H. E., Leeds.
Hicks, R. G., Guy's.
Holden, G. H. R., Camb. and St. Barthol.
Hormusji, S. C., Bombay and Univ. College.
*Houghton, P. A., St. Barthol.
Hughes, M. L., King's College.
Huibert, H. H., St. Thomas's.
*Jauffret, G. H. L., Univ. Coll.
Jekyll, L. N., London.
Joscelyne, A. E., London.
*Kealy, J. W. G., King's College.
Lace, F., Bristol.
Le Cronier, M., St. George's.
Legh, H. L. de, St. Barthol.
Longmore, T. W. M., King's Coll.
Lord, W. H., London.
Macgregor, J. J., St. Barthol.
*MacIlwaine, S. W., Guy's.
*Marsh, E., Birmingham.
*Marshall, E. W., Guy's.
Mitchell, J. J., Leeds.
*Morgan, M. J., Guy's.
Murray-Aynsley, J. H., St. Geo.'s.
Musson, W. E. C., St. Barthol.
*Nicklin, S., Birmingham.
Nisbet, F. J., Guy's.
*Palmer, A. E., Guy's.
*Parker, G. D., St. Barthol.
*Parsons, G. G., London.
Pearse, R. E. F., St. Barthol.
Pendlebury, J. P., Guy's.
Peters, D., University College.
Pettitt, W. B., Leeds.
Pode, E. D. Y., St. Thomas's.
Powell, L. W., Univ. College.
*Pratt, W. S., Middx., Univ. Coll., and Manchester.
Raynes, S. H., London.
*Rennie, W., Birmingham.
Ricketts, T. F., Guy's.
Robinson, H., Leeds.
Rouw, R. W., Guy's.
*Ruel, C. P., University College.
Russel-Rendle, C. E., St. Barth.
Rygate, C. D. H., Guy's.
Savory, H., Middx. and Camb.
*Scott, S. N., Charing-cross.
Sequeira, J. H., London.
Simpson, F. O., Liverpool.
Smith, T. W., Guy's.
Smyth, N. E., Birmingham.
*Snell, E. H., Birmingham.
Stalkart, C. E. G., Edinburgh.
*Sugden, H. C., Manchester.
*Taylor, F. R. P., Westminster.
Tebb, A. E., Guy's.
*Thomas, H. W., Birmingham.
Thomas, P. C., St. Thomas's.
Wade, N., St. Bartholomew's.
Wainman, B., Leeds.
Waller, A. W., St. Thomas's.
Webster, A., Glasgow.
Whitaker, S. M., St. Thomas's.
Willard, S. D., St. Barthol.
*Williams, E. J., London.
Wood, J. F., St. Bartholomew's.

* Candidates who have not presented themselves under the Regulations of the Examining Board.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE. The following candidates have satisfied the Examiners in the respective subjects comprised in the First Examination for the degree of Bachelor in Medicine:—

Elementary Anatomy and Physiology, Chemistry with Chemical Physics, and Botany with Medical Botany.—Frank Dennis Browne, Yorkshire College; Frank Hawthorn, James Henry Hunter, William Martin, Arthur Alexander Joseph McNabb, College of Medicine, Newcastle-on-Tyne; Alworth Edward Merewether, and Morgan Richards, London Hospital.

Elementary Anatomy and Physiology—Edward Bromley, Yorkshire College; Robert Bruce Duncan, William Fowler, Kennedy Campbell Hill, Walter Denton Johns, Ronald Seymour Macpherson, and Frederick Robson, College of Medicine, Newcastle-on-Tyne.

Chemistry with Chemical Physics, and Botany with Medical Botany.—Bertram William Bond, St. Thomas's Hospital; Ernest Chittenden Bridges, William Harvey Maidlow, Ernest Frank Syrett, Leslie Cavendish Thorne Thorne, St. Bartholomew's Hospital; Edward Eden Cass, Yorkshire College; Taylor Dixon, William Forrest, Norman Ralph Lishman, Edgar Mitchell, Clifford Winslow Turner, M.R.C.S., College of Medicine, Newcastle-on-Tyne; Albert Edward Martin, Thomas Suffield, London Hospital; Charles Henry Duncan Morland, L.R.C.P., M.R.C.S., St. George's Hospital.

Chemistry with Chemical Physics.—Kenneth Worsley Poole, L.R.C.P., M.R.C.S., and Avery Clough Waters, M.R.C.S., L.S.A., London Hospital.

The following gentlemen have passed the Second Examination for the degree of Bachelor in Medicine:—

Honours Second Class.—Arnold Caddy, L.R.C.P., M.R.C.S., St. George's Hospital; Cuthbert Bracey Dale, Wm. Harvey Maidlow, Berthold Bezley Thorne Thorne, St. Bartholomew's Hospital; George Burton Robinson, Sheffield School of Medicine.

Pass List.—John Atcherley, Ramsay Lamy Daly, Yorkshire College, Leeds; Robert Cunynghame Brown, John Clay, George Frederick Cross, William James Durant, Thomas Greenwood Hall, Charles Henry Humble, James Law, William Davison-Melville, Albert Ezra Neale, William Henry Turnbull, Algernon Edward Luke Wear, and Edward Cecil Willcox, College of Medicine, Newcastle-on-Tyne; James Scott Tew and Robert Hodgson Cole, University College, London; Henry William James Cook, Charing-cross Hospital; Arthur Augustus Hewer, St. Bartholomew's Hospital; David Arthur Hughes, Middlesex Hospital; Arthur Jervis, L.R.C.P., M.R.C.S., and Richard Pearson, L.R.C.P., M.R.C.S., St. George's Hospital, London; Albert Edward Martin, London Hospital; Wm. Rowland Thurnam, St. Thomas's Hospital; James Alexander Wood Watts, Owens College, Manchester.

Examination for the Licence in Sanitary Science for Medical Officers of Health of Five Years' Standing.—Thomas Coke Squance, M.D., M.B., B.S.

ROYAL UNIVERSITY OF IRELAND.—The following candidates have passed the Second Examination in Medicine:

Upper Pass Division.—*John A. Adams, Catherine Arnott, Kennet B. Barnett, *John J. Bourke, *Christopher L. Bunton, Michael Coughlan, Frank J. Dunne, *James J. Fitzgerald, *Thos. Jackson, Robert McDowell, James J. Thompson, Edward J. Walker, George S. Walker. (Those marked with an asterisk may present themselves for the further examination for Honours.)

Passed.—Hugh Atkinson, James F. Barrett, Richd. K. Brown, James F. Carroll, Francis H. Clements, Herbert Cunningham, Wm. H. Curran, Isaac Davidson, Thomas H. Donovan, Aloysius J. Dowling, George W. Farley, Jas. H. Heaney, Jerome Heelan, Edwin Hegan, Hugh Heron, M. Ledwith, Thomas Mac Swiney, Wm. T. Meagher, Ed. Montgomery, John Morrow, Henry O'Reilly, John Wilkin, James Young.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—FELLOWSHIP EXAMINATION.—The following gentlemen have been admitted Fellows of the College:—

William Ffolliott, Surgeon-Major Medical Staff, and John Henry Griffin, L.R.C.P. Lond.

COLLEGE OF PHYSICIANS IN IRELAND.—The following gentleman has been admitted a Member of the College:—

Henry Cramer Guinness, Surgeon-Major Medical Staff.

CONJOINT SCHEME OF THE COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND.—The following gentlemen have passed their Final Examination:—

W. P. Barter, Frank Bradshaw, William Delany, George G. Dooley, J. H. Dwan, L. H. Ford, W. A. Garry, R. H. Hamilton, F. C. Hanson, F. Manning, W. T. Mills, A. G. Mossop, W. W. Murphy, Thomas O'Brien, J. P. O'Connell, J. J. Redmond, Wm. Ross, F. J. Teevan, D. W. M. Turpin, and R. P. Wall.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—The Entrance Scholarships in Classics and Mathematics have been awarded to W. C. Wood, of Marlborough College, and T. T. Brunyate, of Christ Church, Oxford, respectively.

NEW HOSPITAL AT BOLTON.—The Blair Convalescent Home at Toppings, near Bolton, erected and endowed at a cost of £40,000, the bequest of the late Mr. Stephen Blair, bleacher, Mill Hill, Bolton, was formally opened on Monday, the 6th inst.

COTTAGE HOSPITAL AT GORLESTON.—Last week the ceremony of laying the foundation stone of the Cottage Hospital at Gorleston was performed with masonic ceremony by the Right Hon. Lord Suffield, K.C.B., Right Worshipful Grand Master of Norfolk.

PROPOSED ERECTION OF A HOSPITAL.—At a special meeting of the Health Committee of the Cardiff Corporation, held on the 2nd inst., it was resolved: "That in the opinion of this committee it is desirable to proceed as soon as possible to the erection of a hospital on the Canton Common for the accommodation of sixty patients, with administrative block, and that the borough engineer be requested to prepare plans at once for the consideration of this committee."

THE SANITARY INSTITUTE.—Mr. G. W. Hastings, M.P., has accepted the Presidentship of the Congress of the Sanitary Institute, which is to be held in Worcester, commencing Sept. 24th next. At an examination held for Inspectors of Nuisances on May 2nd and 3rd, of 76 candidates 38 were certified to be competent, as regards their sanitary knowledge, to discharge the duties of inspector of nuisances.

ROYAL MINERAL WATER HOSPITAL, BATH.—At the annual meeting of governors at this hospital, on the 1st inst., the President announced that 1130 in-patients had been treated in the course of the last twelve months, and that there had not been a single death during that time—a circumstance which has not happened for forty-nine years, when the number of in-patients was less than half that of the past year.

THE NEW HOSPITAL FOR WOMEN, EUSTON-ROAD.—The Princess of Wales, accompanied by the Prince of Wales, laid the foundation stone on Tuesday of this new hospital, which is to be erected opposite St. Pancras Church. It will accommodate forty in-patients, and comprise paying wards and a room for the use of the Medical Women's Association. The estimated cost is £20,000, of which £7000 remains to be subscribed.

UNIVERSITY OF CAMBRIDGE. — Notice has been issued that the examinations for medical and surgical degrees for the Easter term will be held in the Philosophical Library, New Museums. The days fixed for the several subjects in the third examination, first part, are as follows: May 14th, 17th, 18th, 20th, and 21st; for the second part, May 15th, 16th, 20th, 21st, and 22nd; for the degree of Master in Surgery, May 17th, 18th, and 20th.

FEMALE PHARMACISTS IN HOLLAND.—Since female students have been admitted to pharmaceutical examinations in Holland, a considerable number not only of young ladies, but of pharmacists' wives, have taken advantage of the extension of the privileges to the fair sex. It is stated that at the last examinations thirty-five women passed, while the number of successful male candidates was only twelve.

VICTORIA INFIRMARY, GLASGOW.—The first annual report of this institution states that considerable progress has been made with the erection of the first section of the buildings. Accommodation is being provided for eighty-four patients, to maintain whom an annual sum of about £4000 will be required. The cost of the buildings now in course of erection will be altogether about £22,000, and it is expected that they will be ready for the reception of patients in the ensuing autumn.

PRESENTATION.—At the distribution of the certificates to the two classes (ladies and gentlemen) of the St. John Ambulance Association, Grange-over-Sands, by the Right Honourable J. T. Hibbert on the 8th ult., Mr. Beardsley, the lecturer, was presented with a handsome Russian leather travelling bag with gilt mounts. On it was a plate with this inscription: "Presented to Amos Beardsley, Esq., M.R.C.S. &c., by the members of the two ambulance classes, Grange-over-Sands, April 8th, 1889."

THE CANADIAN MEDICAL ASSOCIATION. — The twenty-second annual meeting of the Canadian Medical Association will be held at Banff, North-west Territory, on the 12th, 13th, and 14th of August next. Members and delegates, with their wives and families, will be carried by Canadian Pacific Railway at reduced rates. A cordial invitation is extended to all members of the regular profession in good standing in Canada, the United States and Great Britain, to whom the necessary certificates and particulars will be sent on application to the secretary, Dr. Bell, 53, Union-avenue, Montreal.

MEDICAL ETIQUETTE IN BELGIUM.—During a recent discussion at a meeting of a Belgian provincial Medical Society, amongst the members of which there had been some difference of opinion, a set of rules for their guidance in future cases was adopted. These rules have reference to a competition for public appointments. One of them lays down that when a medical man settles in a locality in which no practitioner has hitherto resided, and where the appointments have necessarily been in the hands of a practitioner at some distance off, they ought to be given up to the new comer.

THE ROYAL ACADEMY BANQUET.—The following members of the medical profession were present at the Royal Academy banquet held last Saturday evening, the 4th inst.: Sir Andrew Clark, Bart., F.R.S. (President, Royal College of Physicians); Mr. G. A. Critchett, M.A.; Professor W. H. Flower, F.R.S.; Mr. Victor Horsley, F.R.S.; Professor T. H. Huxley, F.R.S.; Professor Ray Lankester, F.R.S.; Professor J. Marshall, F.R.S. (President of the General Medical Council); Sir James Paget, Bart., F.R.S.; Dr. Quain; Mr. W. S. Savory, F.R.S. (President, Royal College of Surgeons); Sir Edward Sieveking; and Dr. W. Smith.

CHILDREN'S HOSPITAL, BRADFORD. — On the 1st inst., the ceremony of laying the foundation stone of the new Hospital for Sick Children of the Poor, in St. Mary's-road, Bradford, was performed by Mr. S. Cunliffe Lister, of Manningham and Swinton Hall. At the luncheon which followed, Mr. Lister, in responding to the toast of his health, stated that the entire estimated cost of the new premises would, he understood, be about £10,000, towards which there was about £7000 in hand, and he proposed to give assistance to the extent of £5000. An income of £1500 would be required to maintain the institution.

CHILDREN'S HOSPITAL, NOTTINGHAM. — The twentieth annual report of the committee of management, just issued, may be considered satisfactory. The medical statement shows that the out-patients' attendances during the past year were 6462, and 387 children were admitted as in-patients. Colonel Seely received at Sherwood Lodge during the summer 62 convalescent children from the hospital, and paid all expenses, the children deriving great benefit by the change. The balance sheet shows that at the beginning of the year there was a balance in hand of £169, and that it closed with a debt of £109. The receipts amounted to £2190 11*s.* 6*d.*, while the disbursements were £2470 1*s.* 6*d.*

BURIAL REFORM ASSOCIATION.—The eleventh annual meeting of this Association was held at the Mansion House, London, on the 3rd inst. The Lord Mayor presided. His Lordship said that he was entirely opposed to the present system of funerals, the expenses of which ought to be reduced in all classes of society. The Bishop of London moved a resolution affirming the desirability of persons interested in the encouragement of sanitation, temperance, and thrift, giving their moral and practical support to the Association, which was carried. Other speakers followed, showing from several points of view the defects of the existing system of burial, and urging further legislation on the subject. A vote of thanks was accorded to the Lord Mayor, and the meeting terminated.

KING'S COLLEGE HOSPITAL.—The Duke of Cambridge presided at the Jubilee festival which took place on Tuesday at the Hôtel Métropole, in the presence of a distinguished assembly. His Royal Highness, on proposing the toast of the evening, "Prosperity to King's College Hospital," after speaking of the absolute need of such institutions and of their claims upon the public generosity for support, said that he observed in the official report with regret that at present there were two wards in the hospital, comprising twenty-six beds, which had to be closed, albeit the whole number of patients was increasing. It appeared that the annual subscriptions were £16,000 a year. The deficit, however, still amounted to £3000. Towards the close of the meeting the treasurer announced subscriptions amounting to £4000.

HEALTH LECTURE AT ESHER.—Dr. Thorne Thorne, of the Local Government Board, gave a lecture on "Methods of House Drainage, Wholesome and Unwholesome," at the Village Hall, Esher, on the 29th ult. (which formed the concluding lecture of a series given at the hall). The lecture was largely illustrated by diagrams, and was attended by the Duchess of Albany, accompanied by Sir Robert and Lady Collins. The subject of the lecture had been chosen because of the near completion of the works of sewerage which have been carried out in Esher and adjoining places. In the course of his address Dr. Thorne explained that, whereas the mean annual death-rate per million living from fever (of which typhoid was the type) twenty years ago was 934, it was now, by the adoption of systems of sewerage, less than 300. In conclusion, he congratulated Esher on its future efficient sanitary prospects.

MISSION TO LEPERS IN INDIA.—At the annual meeting of this Society in Dublin on the 10th ult. a resolution approving of the action of the committee in endeavouring to provide homes for the untainted children of Indian lepers, and thereby encouraging their entire separation from their afflicted parents, in the hope of saving the children from falling victims to the disease, was moved by Surgeon-General De Renzy, C.B., and unanimously adopted. The report, which was also adopted, speaks hopefully of the work done by the mission in India, where, however, there are said to be 500,000 lepers—men, women, and children—victims of the most terrible disease known to humanity, and which number is being constantly added to. Funds are urgently needed, and will be gladly received by the secretary, W. C. Bailey, Esq., 17, Glengyle-terrace, Edinburgh.

REMUNERATION FOR CLUB PRACTICE IN VIENNA.—From a circular which has just been issued by the Council of the Vienna "Collegium" of medical practitioners, it would appear that it is possible to obtain a somewhat more adequate recompense for professional services rendered to members of clubs and other societies in that capital than it usually is in London or most provincial towns in this country. The circular lays down that when the club pays the doctor per attendance, the lowest fee ought to be 50 kreutzers for advice at the doctor's house and a florin for a visit. When a club engages a doctor by the year, the minimum salary should be 3000 florins, corresponding to a payment per member of 3 florins annually. Medical men are warned in the circular not to enter into competition with each other by offers to accept too low terms of remuneration.

GRIMSBY AND DISTRICT HOSPITAL.—The new wing of this hospital—the munificent gift of the Mayor, Alderman H. J. Veal—to commemorate the fourth year of his re-election to the mayoralty of the borough, was opened on the 27th ult. by the Countess of Yarborough. A grand fancy Fair organised by the matron, Miss Mountford, and the nurses of the institution, assisted by their friends, was held in the new building on Friday and Saturday. It was a complete success, and resulted in realising over £100 for the funds of the hospital. Lord Yarborough presided at the luncheon, and, in proposing "Success to the Institution," expressed the pleasure it had afforded the Countess—his mother—to open the bazaar, and thanked Miss Mountford and the nurses for their indefatigable exertions in organising it, according also thanks to the resident medical officer, Mr. Damain, for his admirable and active co-operation.

SPANISH PRIZE COMPETITION.—The Medical Institute of Valencia offers gold medals for the best essays (which may be in English) on each of the following topics:—1. Etiology and Treatment of Rheumatism in its various forms. 2. Indications for Resection or Amputation in White Swelling. 3. Chemical Methods of Disinfecting Foul Air applicable to public and private buildings, without danger to the inmates. 4. Solution of any interesting scientific point at the author's choice. Extraordinary Prizes—1. (Ferrer y Julve prize) A copy of a rare and valuable work for an essay on the Cutaneous and Mucous Manifestations of Syphilis, and their rational treatment. 2. (Mas y Soler prize) The sum of £10 for an essay on Hypnotism as a Substitute for Surgical Anæsthesia, its advantages and inconveniences. The essays are to be sent unsigned, but bearing a motto corresponding with one on an accompanying sealed envelope containing the author's name, to the secretaries before Dec. 1st.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mrs. Emily Bulmer, of Strood, Kent, has bequeathed £1000 each to the Bristol Home for Incurables (Clapham) and St. Bartholomew's Hospital (Rochester).—The Dame Margaretta Rose, late of Rayners, Bucks, has left by her will £100 to the Hospital for Consumption at Brompton.—The Skinners' Company has granted a donation of five guineas to the National Truss Society (King William-street) and of 10 guineas to the Convalescent Home Fund of the Chelsea Hospital for Women.—The Clothworkers' Company has given 10 guineas to the National Truss Society (King William-street).—The Court of Common Council, London, has granted a donation of 50 guineas in aid of the Fund for the extension of the Italian Hospital, Queen-square, Bloomsbury.—Mrs. Anna Walsh has left £400 and Miss Margaret Wilson £100 to Jervis-street Hospital, Dublin. The Ouzel Galley Society have given £394 7*s.* to Jervis-street Hospital, Dublin.—Mr. R. Beauchamp £50 and Sir E. C. Guinness, Bart., £100 to the Adelaide Hospital.—Mr. Gervas Taylor £25 to City of Dublin Hospital.

MEDICAL NOTES IN PARLIAMENT.

The Vaccination Commission.

IN the House of Commons on Friday, the 3rd inst., Mr. Bradlaugh asked the President of the Local Government Board whether it was intended that it should be open, under the terms of the proposed Royal Commission on Vaccination, to investigate the history and scientific foundation of vaccination, and to question whether compulsion by law to vaccination was justifiable.—Mr. Ritchie: I suspect that the question is not so much one of what was the intention of the Government as what are the terms of the reference to the Royal Commission, and what the reference includes. The Government have always been desirous that the terms of the reference should be wide enough to include all aspects of this case. I have read the terms of the reference to the House, and I understand that those who are interested were satisfied that they were sufficiently wide. As to whether they include the particular point of the hon. gentleman, he is as well able to judge as I am.—Mr. Picton: Does the inquiry include the whole question of compulsion?—Mr Ritchie: My view is that the Royal Commission will be able to look into the whole question.

The Opium Trade with China.

Mr. S. Smith moved a resolution urging the Government to intimate to the Chinese Government that in the next revision of the Treaty of Tientsin full power would be given to extinguish the opium trade if it thought fit. Mr. Smith dwelt upon the incalculable harm done to the Chinese by the importation of Indian opium. It was computed that there were about 25,000,000 habitual opium-smokers in China, and that in a year 60,000 persons committed suicide.—Dr. Farquharson, in opposing the resolution, said there was much exaggeration as to the use of opium in China and its injurious effects. Experience seemed to show that the effects of opium were not so serious as those of alcohol. Opium did not break up the system as did alcohol taken to excess, and it certainly was not, like alcohol, the parent of crime, for the opium-eater was a languid and quiet person. Other speakers followed, and, Sir J. Gorst having replied on behalf of the Government, Mr. S. Smith's resolution was rejected on a division by 165 against 88.

Ophthalmia in Schools.

On Monday, the 6th, Mr. Mundella asked Mr. Ritchie whether his attention had been called to the long-continued prevalence of ophthalmia in the Central London District (Poor-law) Schools at Hanwell, in which there were 1100 children from the unions of the City of London and St. Saviour's, Surrey, &c.—Mr. Ritchie replied that the statements in the question were substantially correct. With regard to the schools at Anerley, belonging to the North Surrey School district, Dr. Bridges and Dr. Mouat, two of the Board's inspectors, in 1873 advised that between 300 and 400 children should be placed under medical care, and Mr. Nettleship was selected to take charge of them. Structural and hygienic alterations had been made, the result being that ophthalmia had been practically eradicated from the Anerley Schools. The Local Government Board had made strong and urgent representations to the managers of the Hanwell Schools to adopt similar measures, but so far without effect.

Dust in Factories.

In answer to Mr. Coghill, Mr. Matthews said that the whole subject of amending the Factory Acts, and this point among others—namely, whether effectual means can be devised for preventing injury from the inhalation of dust—has lately been engaging his attention, and he had a Bill in preparation which he hoped to have an opportunity of introducing this session.

Cow-pox and Vaccination.

On Tuesday, the 7th, Mr. Picton asked the President of the Local Government Board whether his attention had been called to a letter from Professor Crookshank, of King's College, London, in *The Times* of April 30th; whether the statement there made was correct that the medical officer of the Local Government Board, at a meeting of the Pathological Society in December, 1887, expressed his satisfaction that the outbreak of cow-pox in Wiltshire would afford an opportunity of testing the effects of vaccine from that source on human beings, as had long been desired.—Mr. Ritchie: I am informed by the medical officer of the Local Government Board that the statement in the second paragraph of the question is incorrect.

The Vivisection Debate.

Dr. Farquharson asked the First Lord of the Treasury whether, considering the great interest felt by many members of the House in the adjourned debate on Supply, April 29th, he could now give an early and definite date for its resumption, as it was desirable that the matter should not be delayed, on account of the very serious accusations made against medical men.—Mr. W. H. Smith said that he hoped on that account to give an early opportunity for resuming the debate.

The Punishment of Flogging.

On Wednesday, the 8th, Mr. Milvain moved the second reading of the Corporal Punishment Bill, which measure is intended to abolish corporal punishment for rogues and vagabonds, but to inflict it upon burglars armed with lethal weapons, and upon persons guilty of rapes, and certain offences under the Criminal Law Amendment Act. After a debate the Bill was read a second time by 194 against 126.

The Use of Chloroform-Morphia in Exeter Workhouse.

On Thursday, the 9th, Mr. Ritchie, in reply to Mr. Pickersgill, said it was true that forty-two pounds of chloroform-morphia were used in Exeter Workhouse during the past year; but the medical officer, who has usually from 130 to 140 cases on his books, keeps this medicine locked in a cupboard, and only leaves out a small quantity in a phial for use by the nurses in cases of emergency. The guardians have, however, been notified that the tincture only should be administered under such medical supervision as is possible.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BERRY, F. C., M.D. Dub., M.B., B.Ch., has been reappointed Medical Officer, Lynton, North Devon.

BURD, G. V., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer of the North Lew District, Okehampton Union.

COCK, F. W., M.D. Dur., has been appointed Anæsthetist to Guy's Hospital.

DABBS, G. H. R., M.D. Aberd., C.M., M.R.C.S., has been appointed Medical Officer, Shanklin Urban Sanitary Authority, Isle of Wight Union.

EDRIDGE-GREEN, F. S., M.B., B.S., M.R.C.S., L.R.C.P., has been appointed Assistant Medical Officer to the Private Asylum, Northumberland House, Finsbury-park.

FRASER, A. M., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer, Whitley and Monkseaton Urban Sanitary District, Tynemouth Union.

GEMMELL, WILLIAM, M.B., C.M., D.P.H. Glas., Royal Infirmary, Glasgow, has been appointed House Surgeon to the Glasgow Maternity Hospital.

HAILEY, M. M., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of the Rural Sanitary District, Newport Pagnell Union.

HAVELOCK, JOHN G., M.B., C.M., has been appointed Junior Assistant Medical Officer to the Montrose Royal Lunatic Asylum.

LEWIS, JOHN NICHOLS, M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed Medical Officer to the Christchurch District of the Newport Union.

MAGGS, W. A., L.R.C.P., M.R.C.S., L.D.S., has been appointed Senior Assistant Dental Surgeon to Guy's Hospital.

MANSBRIDGE, J., L.D.S., has been appointed Assistant Dental Surgeon to Guy's Hospital.

MASTERMAN, G. F., L.K.Q.C.P. Irel., M.R.C.S., L.S.A., has been reappointed Medical Officer of Stourport.

MURRAY, H., L.D.S., has been appointed Assistant Dental Surgeon to Guy's Hospital.

PARSON, WILLIAM, M.R.C.S., L.S.A., has been reappointed Medical Officer of Godalming District, Guildford Union.

PILLIN, H. L., L.D.S., has been appointed Assistant Dental Surgeon to Guy's Hospital.

RICHARDS, G. O., L.R.C.P., M.R.C.S., L.D.S., has been appointed Assistant Dental Surgeon to Guy's Hospital.

ROGERS, G. A., M.R.C.S., L.S.A., has been reappointed Medical Officer of the Limehouse District, Middlesex.

ROUW, R. W., L.R.C.P., M.R.C.S., L.D.S., has been appointed Assistant Dental Surgeon to Guy's Hospital.

SILK, J. F., M.D. Lond., has been appointed Anæsthetist to Guy's Hospital.

SUGDEN, EDGAR B., M.R.C.S., L.S.A., has been appointed Medical Officer of the Clipham District, Stamford Union.

TURNBULL, EDWD. THEW, L.R.C.P., L.R.C.S. Edin., L.F.P. & S. Glas., has been appointed Medical Officer and Public Vaccinator to the North-east District of the Patrington Union, Yorks., vice H. Hairsine, resigned.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

ADELAIDE HOSPITAL, South Australia (apply, Agent-General for South Australia, 8, Victoria-chambers, Victoria-street, Westminster).—Medical Superintendent. Salary £500 per annum, with board and lodging.

BRADFORD INFIRMARY.—Junior House Surgeon. Salary £50 per annum, with board and residence.

BRISTOL EYE HOSPITAL.—Clinical Assistant for six months. An honorarium of 60 guineas will be paid.

BURTON-ON-TRENT FRIENDLY SOCIETIES MEDICAL ASSOCIATION.—Junior Surgeon.

CHARING-CROSS HOSPITAL, Strand, W.C.—Dispenser. Salary commencing at £105 per annum.

DERBYSHIRE GENERAL INFIRMARY, Derby.—House Surgeon. Salary for the first year £100, increasing £10 a year up to £150, with apartments, board, and washing.

ESSEX LUNATIC ASYLUM, Brentwood.—A Locum Tenens for a few weeks. Terms two guineas a week.

GUEST HOSPITAL, Dudley.—Resident Medical Officer. Salary £100 for the first year, £110 for the second, and £120 afterwards, with board, residence, and washing.

KENSINGTON DISPENSARY, Stanford-road, Kensington-court, W.—Resident Medical Officer. Salary £125 per annum, with furnished apartments, coals, gas, and attendance.

LONDON TEMPERANCE HOSPITAL, Hampstead-road.—Junior House Surgeon. Board and residence in the hospital.

NATIONAL DENTAL HOSPITAL, Great Portland-street, W.—Anæsthetist to this institution. Also Lecturer on Histology.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—House Surgeon. Salary £100 per annum, with furnished apartments, board, and washing.

ROYAL FREE HOSPITAL, Gray's-inn-road.—Senior Resident Medical Officer. Salary £100 per annum, with board and residence in the hospital. Also a Junior Resident Medical Officer. Board and residence in the hospital.

TAUNTON UNION.—Medical Officer for the Taunton St. Mary District of this Union. Salary £75 per annum, together with fees for Midwifery of 10*s.* a case, and a payment of 2*s.* 6*d.* for lunatic returns.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-on-Tyne. Lecturer on Anatomy. Salary £300 per annum, increasing by annual instalments of £25.

WANDSWORTH AND CLAPHAM UNION, Offices, New Wandsworth.—Assistant Medical Officer for the Infirmary of this Union. Salary £120 per annum, with apartments, board, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ADDINSELL.—On the 23rd ult., at Ashburn-place, S.W., the wife of Augustus W. Addinsell, M.B., of a daughter.

ARMSTRONG.—On the 4th inst., at Madras, the wife of Henry Armstrong, Madras Medical Service, of a son.

CLARK.—On the 30th ult., at Twickenham, the wife of W. Marston Clark, M.R.C.S., L.R.C.P., of a son.

DUKES.—On the 6th inst., at Sunnyside, Rugby, the wife of Clement Dukes, M.D. Lond., of a daughter.

GARLICK.—On the 5th inst., at 45, Woburn-place, Russell-square, the wife of George Garlick, M.D. Lond., of a daughter.

MARRIAGES.

CLAY—HARRIS.—On the 30th ult., at St. John's, Bromley, Kent, Challoner, youngest son of the late Robert Richard Clay, M.R.C.S., L.S.A., of Fovant, Salisbury, to Annie Kinnard, only child of James Harris, of Bromley.

EWEN—CLEMENTS.—On the 7th inst., at St. Matthew's Church, Redhill, Surrey, Harry Walter Ewen, M.R.C.S.E., of Redhill, to Emily Jane, eldest daughter of W. Clements, Esq., of Woodside, Redhill.

FOOTT—PARKER.—On the 30th ult., at St. Mary Abbott's, Kensington, R. E. Foott, M.D., A.M.S., to Elizabeth Topp, elder daughter of the late J. G. N. Parker, of Waterview, Passage West, county Cork.

HOWLIN—YOUNG.—On the 30th ult., at South Bersted, Sussex, Dr. Abraham John Howlin, son of A. J. Howlin, Esq., of Carne House, Wexford, Ireland, to Agnes Douglas, daughter of the late D. D. Young, Esq., of Morton Lodge, Quebec.

JONES—CAMPBELL.—On the 1st inst., at Goodrich Church, Herefordshire, Francis William Brandram Jones, M.D., son of the late Edmund Jones, Esq., M.D., J.P., of Mount Craig, to Charlotte Rosa, daughter of Charles Lee Campbell, Esq., of Glewstone Court, in the same county.

TAYLER—PEARLESS.—On the 4th inst., at St. Peter's, Eaton-square, Francis T. Tayler, M.B., B.A., of Claremont Villa, St. John's, S.E., to Louisa Blanche Maud, widow of Charles D. Pearless, M.R.C.S., of Sevenoaks, and younger daughter of the late William Harrison, of Ellenborough House, Rochampton.

DEATHS.

ANDREWS.—On the 30th ult., at his residence, Glenthorne, White Ladies-road, Clifton, Onslow Andrews, M.D., formerly of Monmouth.

JONES.—On the 1st inst., at The Shrubbery, Epsom, Arthur O'Brien Jones, Esq., F.R.C.S., aged 76.

KEMPSTER.—On the 4th inst., at Oak House, Battersea, S.W., Eliza Mary Ann, wife of W. H. Kempster, M.D.

LANGMORE.—On the 1st inst., at Oxford-terrace, Hyde-park, John Wreford Langmore, M.D. Lond., elder and only surviving son of Dr. John C. Langmore, aged 44.

MCDONNELL.—On the 6th inst., at Merrion-square, Dublin, Dr. Robert McDonnell, aged 61.

SMITH.—On the 26th ult., at 35, Park-road, Bromley, Kent, Richard Thomas Wallis Smith, F.R.C.S. Eng., L.A.C., late of Clare, Suffolk, in his 75th year. Dearly loved by all who knew him.

STORIE.—On the 26th ult., at Sackville-villas, Aldrington, Brighton, Charles Gordon Robertson Storie, M.B., C.M., Principal Medical Officer Government Medical Department, Sarawak, Borneo, third son of the Rev. Archibald Storie, Minister of Insch, Aberdeenshire, in his 34th year.

THOMSON.—On the 1st inst., suddenly, at College-road, Clifton, George Spears Thomson, M.D., aged 60.

TURTON.—On the 30th ult., at Duchess-road, Edgbaston, Birmingham, Francis Alfred Turton, Surgeon-Major, late Medical Staff, aged 52.

VASEY.—On the 2nd inst., at San Francisco, James Adams Vasey, Surgeon H.M.S. *Amphion*, aged 36.

VEALE.—On the 26th ult., suddenly, at his residence, Roxburgh House, Harrogate, Richard Sobey Veale, M.D., J.P., aged 48.

WILLIAMS.—On the 9th March, at Ayr, Lower Burdekin, North Queensland, John Traherne Williams, J.P., M.R.C.S., and L.R.C.P., second son of the Vicar of Widecombe-in-the-Moor, Devon, in his 27th year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 9th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
May 3	30·00	S.W.	54	49	101	61	45	·30	Cloudy
,, 4	29·95	S.E.	60	55	112	74	50	..	Hazy
,, 5	29·90	N.E.	63	57	119	77	53	..	Hazy
,, 6	29·81	N.E.	61	56	116	77	54	·02	Hazy
,, 7	29·89	S.E.	63	59	105	66	55	..	Hazy
,, 8	29·89	S.W.	56	52	111	65	51	..	Cloudy
,, 9	29·72	E.	64	57	114	74	53	·02	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

BEFORE THE DAWN OF SURGERY.

THE imagination of Lucretius supplies a terrible picture of what must have been the sufferings of pre-historic man when wounded in his encounters with wild beasts. In that dim foretime, he says (De Rerum Naturâ, v., 984), the boar or the lion would drive his human antagonists to the rocks for shelter, and sometimes the fugitive "in the dead of night would surrender his leaf-strewn sleeping-place to the savage guest" from the woodlands. Sometimes "this one or that would be seized and, torn open by the teeth of the wild beasts, would furnish to these a living food, and fill with his moaning the mountains and forests as he looked on his living flesh buried in a living grave. But those whom flight had saved with body eaten into, holding ever after their quivering palms over the noisome sores, would summon death with appalling cries, until cruel gripings had rid them of life, forlorn of help, unwitting what wounds wanted." Nor was it in the surgical sphere only that our undeveloped ancestors suffered from ignorance. "They unwittingly would often pour out poison for themselves; now," adds the great didactic poet of the Republic, "with nicer skill men give it purposely to others." The passage is deeply interesting, and may be studied in connexion with the opening chapter of Celsus De Medicinâ, in which the rise of surgery is described.

M. M. (London) acted with great consideration and propriety. But he will be quite justified in attending the servant in accordance with the servant's wish and with her master's sanction.

Constant Subscriber.—Any Court guide will give the information. Medical officers in the volunteer force are entitled to use cockades.

AMBULANCE LECTURES.

To the Editors of THE LANCET.

SIRS,—According to the recent instruction issued by the chief secretary of the St. John Ambulance Association, lecturers are in future to be excluded from the examinations of their classes. It would be only courteous to those members of the profession who spend their time in the Association's work to let them know the reason for the promulgation of such an order, as it may be presumed it would not be issued without one. Excepting the objection of occult help by the lecturers, which cannot for a moment be admitted, it seems to me that the lecturer's presence should be left entirely to his own discretion, as in some cases it would be of distinct benefit, by infusing confidence in the class, and also allowing the lecturer the pleasure of listening to the result of his labour, and realising any shortcomings in his own teaching. I trust, at all events, it will not be asking the chief secretary too much to let the lecturers know the reasons for their exclusion.

I am, Sirs, yours faithfully,

Polmont, May 8th, 1889. WALTER WICKHAM.

BRAIN TEMPERATURES.

G. F.—The title of the memoir is "La Temperatura del Cervello in Raffronto con quella di altre Parti del Corpo" (The Temperature of the Brain compared with that of other Parts of the Body). Its author is Prof. Angelo Mosso of Turin, and it was lately presented to the Accademia dei Lincei of Rome, in whose "Atti," or Proceedings, it will doubtless be found.

Mr. Cones (Burgess Hill).—The paper will appear very shortly.

ROYAL BARRACKS, DUBLIN.

To the Editors of THE LANCET.

SIRS,—If any structural defect could have been made accountable for the prevalence of enteric fever at the Royal Barracks, Dublin, it would no doubt have been pointed out by Mr. Rogers Field in his "interim report" just made public. The water-supply, I believe, has, more or less, been absolved in former reports; but as both chemical and biological tests up to the present fail to detect zymotic poison in water with anything like certainty, this point cannot be considered as finally settled. Circumstantial evidence may give a clue, but is frequently not of a very decisive character; thus there may be no apparent ill effects amongst those using a supply outside a building, and yet the water be at fault within, if contaminated during transit or storage. Besides, danger does not only arise from the actual presence of zymotic poison, but much more frequently from the predisposing action of water when polluted with ordinary putrescent matter. This is important; because, as long as we are not predisposed in some way, the specific virus seems to be powerless. I may therefore be pardoned in calling attention to certain evidence which, I think, proves that the military authorities sometimes neglect to profit by the result of their own inquiries.

During the last twenty years or so mainly three purifying media of water have been under their consideration—animal charcoal, spongy iron, and carferal. Towards 1875 the then Under-Secretary for War ordered an inquiry into the two former at the Army Medical School, Netley. Commenced by Dr. Parkes, F.R.S., shortly before his death, it was continued for a long time by the late Dr. de Chaumont, F.R.S., resulting in a report which will be found in the nineteenth Army Medical Report. Both materials are credited with being powerful purifying media; but spongy iron is stated to be free from the disadvantage of animal charcoal, of actually favouring the development of low forms of life in water. Carferal, composed of several ingredients, being recommended by a military man, was brought shortly afterwards under Dr. de Chaumont's notice, and in the twentieth Army Medical Report placed by him more or less on a par with spongy iron. Although he expressly styled this report as a provisional one, and publicly protested against any such interpretation, the War Office seem to have given preference to carferal. In Dr. Parkes' "Practical Hygiene," sixth edition, page 33, Dr. de Chaumont went so far as to admit frankly that his former provisional conclusions had largely been based upon an erroneous supposition, without altering the decision of the War Office.

I am not aware of any experience with carferal in connexion with epidemic disease, spongy iron being apparently the material used in cases of special gravity, although excluded from the service generally. Thus when zymotic disease threatened to become epidemic at Fort George in Scotland owing to "the water-supply" (nineteenth Army Medical Report, page 143), there came an urgent order. The improvement was prompt; for in the following year it was reported that the water had been remedied by passage through spongy iron filters, and all complaints, "so loud before," had ceased (twentieth Army Medical Report, page 156). It will be seen from the following Army Medical Reports that the improvement in the sanitary condition at Fort George continued.

In 1880 such alarming reports were circulated about the prevalence of enteric fever amongst the troops at Shoeburyness that THE LANCET caused a special inquiry to be made, and in the number of Dec. 25th, page 1038, it is stated that the issue of spongy iron filters to all the quarters had been attended with most satisfactory results, not a single case of typhoid having occurred amongst the troops for a considerable period. Intimation was subsequently given of a further supply of these filters, but the War Office decided to select others.

I confine myself to a passing reference to the confirmation of the above successes of spongy iron obtained in the Prussian Army (Statistical Sanitary Report by the Medical Military Department of the War Office for 1874–8, page 5; Report by the Military Administration, Coblentz, dated May 11th, 1878; Report by the Surgeon-General of the Tenth Army Corps, Hanover, dated Sept. 17th, 1881, &c.).

In view, lastly, of the result of the competitive trial of filters by THE LANCET Sanitary Commission last year, I leave you to judge whether the following document, received from the Horse Guards, War Office, dated March 4th, 1889, is in harmony with the interest of the service in such cases as that of the Royal Barracks, Dublin:—"With reference to your letter of the 16th January last, relative to your 'Spongy Iron Filters,' I am directed by H.R.H. the Commander-in-Chief to acquaint you that, after full consideration, he is not prepared to take any action in regard to the filter referred to."

Whatever action the War Office may have taken with regard to the Royal Barracks, so much is certain—they will not have occasion up to the present to publish in their Army Medical Reports a similar success to that at Fort George or Shoeburyness.

I am, Sirs, your most obedient servant,

Laboratory, Hart-street, W.C., April 27th, 1889. GUSTAV BISCHOF.

MUTUAL AMENITIES IN THE MEDICAL PROFESSION.

Messrs. Whitmarsh and Wilkinson.—We are always glad when we can contribute to remove any misunderstanding, or settle any dispute, between medical men, neither of whom, it is safe generally to assume, wishes to violate the traditions of the profession. We have carefully read the correspondence submitted to us, and we see no reason for either party departing from the rules which ordinarily guide medical men in such cases. The distance was great, and the services rendered involved much trouble; and these facts added greatly to the kindness of the medical man on the one side, and the gratitude of his professional brother on the other, in a very anxious and serious crisis. But they are no reason for converting the relation of parties into one of ordinary debtor and creditor.

S. G.—Under the conditions described probably a portion of each carbonate would escape neutralisation. It is unlikely that the full physiological action of the carbonate of ammonium could be retained in the mixture suggested.

G. H. D.—The Royal Benevolent College, Epsom.

THE REGISTRAR-GENERAL AND THE ACCEPTANCE OF STATEMENTS BY UNQUALIFIED PRACTITIONERS.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me through your columns to ask advice of those gentlemen who are interested in the protection of the medical profession? I with other medical practitioners have been endeavouring to prevent the practice of an unqualified man in my district. Up to a recent date he was covered by a medical man living seven miles distant, but that protection having been withdrawn, the attention of the Registrar-General was called to the number of uncertified deaths occurring in the neighbourhood. No help can be obtained from that quarter. Deaths frequently occur from septic causes in labour cases, and medical aid is called in when too late and the certificate refused, the local registrar accepting the uncertified certificate written on ordinary note paper. I shall be very grateful for any advice on the subject.

I am, Sirs, your obedient servant,

May, 1889. ONE WHO PAID FOR REGISTRATION.

*** Our correspondent must have seen with pleasure that the Registrar-General has lately taken action against unqualified practitioners in Birmingham, who used the name of a qualified practitioner in death certificates. We must hope that the Registrar-General will go further, and instruct his subordinates to refuse the certificates of all unqualified practitioners. It is monstrous that persons treated by such practitioners, and dying, should be buried until a coroner's inquest has been held.—ED. L.

OVERCROWDING OF THE MEDICAL AND LEGAL PROFESSIONS IN GERMANY.

THE number of students in the various medical schools attached to the twenty-one universities of the German empire during the past winter session was 8662, *as* compared with 8269 the previous winter, thus showing an increase of 1·7 per cent. This, though of evil omen for the German medical men, is a light matter compared with the much worse overcrowding which seems to be going on in the legal profession, which is now said to be most painfully full. The number of students attending the legal faculties last winter was 6577, as against 6166 the previous winter, thus showing an increase of 6·7 per cent.

M.B., C.M. acted perfectly, and his medical neighbour scarcely did less. It is not fit that two gentlemen who so well understand medical—and, we may add, Christian—ethics should have any differences at all.

MIDWIVES' MIDWIFERY.

To the Editors of THE LANCET.

SIRS,—At an inquest held last week on a woman attended by a midwife the medical witness stated that death was due to hæmorrhage, and also that the cord was broken, and that he found the placenta at the post-mortem examination. The jury returned a verdict of "Death from natural causes." Is this verdict right? Surely, it is time that all these women were compelled to hold certificates of proficiency in the calling they choose to practise. Medical men are compelled nowadays to be better qualified than formerly; and what would a jury do with a doctor were he to neglect a patient in the manner above stated? Would a verdict of natural causes meet their views then?—Yours truly,

May 7th, 1889. JUSTITIA.

A QUESTION IN COMPARATIVE PATHOLOGY.

To the Editors of THE LANCET.

SIRS,—I should be obliged if one of your many readers would give me information respecting the following.

B and his assistant shod a horse which was supposed to be suffering from itch; two days afterwards they both developed well-marked scabies. Is the affection in the horse due to the presence of the acarus scabiei, and has the disease been communicated to the human being in the way in which I suppose my own cases to have been affected?

I am, Sirs, yours faithfully,

May 8th, 1889. M.R.C.S.

DEAF-MUTES.

Mr. Van Praagh sends us another communication on this subject, which, we think, has now been sufficiently discussed, so far at least as regards the point or points raised in the controversy between himself and Mr. Howard. Mr. Van Praagh takes exception to Mr. Howard's entire condemnation of day schools, in regard to which the former gentleman has in mind quite as much the needs of the poor as those of the well-to-do classes. Twenty years' experience has more than confirmed Mr. Van Praagh in the soundness of his own views.

R. A.—We must refer our correspondent to THE LANCET of Feb. 2nd, p. 257, for our latest reply to a question which has been very frequently submitted to us.

Student.—The question is not one that we can deal with; it is rather one for a theatrical costumier.

MATERNAL IMPRESSIONS.

To the Editors of THE LANCET.

SIRS,—Dr. G. B. Beale, in your last issue, records a curious case of deformed feet in a newly-born child, the mother accounting for it by having early in her pregnancy seen a pet rabbit which had had its two forepaws gnawed off by a cat. That statement brings to my mind a still more (I think) curious instance of maternal impressions which occurred in my practice a few months ago. I delivered a woman of a fine healthy child. Fully a week after it was born, and when the mother was up and going about the house, I called in to see her, when she drew my attention to a nævus about the size of a sixpence on the flexor surface and radial side of the right forearm, just over the child's wrist-joint. Now, the curious thing about this is that at the time her husband, who is a glazier, was lying in the Western Infirmary of Glasgow suffering from a severe cut on the right arm, and on the same part of the arm as the child had the nævus. The father had met with his accident by falling through the roof of a hothouse which he was repairing three months and a half before the child was born; and I need not say that it had caused the mother a deal of thought and anxiety, as for some time there was considerable doubt whether her husband's hand could be saved or not.

I think it worth while recording the above, as it is at any rate a very curious coincidence.

I am, Sirs, yours truly,

Paisley, May 6th, 1889. WM. RUSSELL, M.B., C.M.

CONTAGIOUSNESS OF TUBERCULOSIS.

DRS. T. M. PRUDDEN, H. M. BRIGGS, and H. P. LOOMIS, the Pathologists of the Health Department of New York, have been requested by the board of health "to formulate a brief and comprehensive statement regarding the contagiousness of tuberculosis in man, stating therein the evidence of the same, and recommending in the briefest possible manner the simplest means of protection from its influence."

Sans.—Our correspondent would, we think, have difficulty in procuring the models in England. He might apply to the French medical publishers.

M. D. Durh. will find the information he desires in our Students' Number, published on Sept. 8th.

DEVELOPING TEETH IN OLD AGE.

To the Editors of THE LANCET.

SIRS,—Perhaps the following instance of developing teeth in old age may interest some of your readers.

The other day an old lady aged sixty-four asked me if I would lance her gums, as they were very painful and she had not slept for many nights. On examining the gums of the upper jaw, I found a well-developed new canine tooth, about one-eighth of an inch, protruding, and the corresponding side full and painful, which to the touch distinctly felt as a tooth coming through. She had lost her canine and incisor (permanent) teeth on the upper jaw some ten years ago.

I am, Sirs, yours truly,

Skipton-in-Craven, April 30th, 1889. GEORGE E. FISHER.

ERRATUM.—The heading attached to the first notice on page 894 in the article "Analytical Records" published last week was incorrect. It should have read "Malcolm *Wilson's* Invalid Port."

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Cheadle, London; Dr. Herman, London; Mr. J. Tweedy, London; Prof. J. E. Morgan, Manchester; Dr. Sharkey, London; Mr. Marshall, London; Mr. A. Haviland, Douglas; Mr. Thies, London; Mr. Bingham, South Petherton; Dr. Wilkinson, Oakengates; Mr. Braden, Lewes; Mr. Van Praagh, London; Dr. Boobbyer, Nottingham; Messrs. Hilliard and Son, Glasgow; Mr. North, York; Dr. Silk, London; Mr. J. L. de Wolfe, Shirehampton; Mr. Toppin, Southampton; Messrs. Griffin and Co., London; Dr. W. J. Hardwicke, Sheffield; Mr. Hare, Weston Park; Dr. Flint, Westgate; Mr. Boehm, London; Messrs. Isaacs and Co., London; Mr. Raynes, London; Dr. J. Bell, Montreal; Dr. Milner Moore, Coventry; Mr. R. W. Murray, Liverpool; Messrs. Wright and Co., Bristol; Dr. Dupré, London; Dr. Buzzard, London; Dr. Lauder

Brunton, London; Mr. M. J. M. Williams, London; Messrs. Hedges and Butler, London; Mr. W. H. Brown, London; Mr. Cones, Burgess Hill; Mr. R. Sirley, London; Dr. Hare, London; Messrs. Evans and Co., Warwick; Mr. McKinney, Nunhead; Dr. O. Sturges, London; Dr. H. B. Donkin, London; Mr. T. A. Buck, Ryde; Dr. J. R. Wolfe, Glasgow; Mr. A. C. Dixey, Evesham; Dr. Laseron; Mr. W. H. Haw, Pretoria; Dr. W. Russell, Paisley; Dr. Rayner, Leamington; Mr. J. Anderson, London; Mr. C. T. Griffiths, Bath; Surgeon-Major Black, Birmingham; Dr. Allwright, Brighton; Mr. Jeaffreson, Newcastle-on-Tyne; Mr. H. H. Taylor, London; Dr. F. H. Alderson; Mr. Guest, London; Dr. Atkinson, Surbiton; Mr. Cheatle, London; Dr. Brasseur, Liege; Mr. Lloyd, St. Asaph; Dr. Spender, Bath; Dr. Griffith, Manchester; Mr. Munday, London; Mr. Bellamy, London; Mr. Rymer, Croydon; Mr. Kelvington, London; Mr. Maythorn, Biggleswade; Mr. Jessett, London; Mons. G. Noiret, Paris; Messrs. Maclachlan and Co., Edinburgh; Mr. Cross, Bristol; Mr. Raw, Bradford; Mr. B. Walker, Spondon; Dr. F. F. Caiger, London; Mr. W. E. Lloyd, Bedminster; Mr. W. Wickham, Polmont; Dr. Thorn; Dr. W. J. Collins, London; Mr. Gooden, London; Dr. Mackay, Huelva; Mr. Kenrick Davies, Llandudno; Mr. Manby, Wolverhampton; Mr. O'Connell, Chicago; Mr. Brittain, Ventnor; Mr. Damian, Grimsby; Mr. M'Makin, Wilmington; Mr. Lambert, Bradford; Mr. Page, London; Mr. G. E. Walker, Liverpool; Mr. Evans, Stockport; Mr. Symons, Dumfries; Mrs. Moore, Geneva; S. G.; Student; M.B. & C.M.; One who paid for Registration; K. A.; G. P. G., Bedford; Medicus, Suffolk; Lady Superintendent, Grimsby; G. M., Sheffield; O. F.; Justitia; A Lover of Justice; Iodol, London; Vicar, Hinckley; M.R.C.S.; Institution for Nurses, Worcester; M.B.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Prisley, Kent; Mr. Sergeant, London; Dr. Mackay, Esk; Messrs. Christy and Co., London; Mr. Stenhouse, Glasgow; Messrs. Richardson and Co., Leicester; Mr. Jones, Barmouth; Mr. Grant, Dundee; Dr. Lawson Tait, Birmingham; Mr. Brocklebank, London; Messrs. Savory and Moore, London; Mr. Toogood; Mr. Popham, London; Drs. Brett and Berry, Watford; Messrs. Woolley, Manchester; Messrs. Macfarlan and Co., London; Dr. Cameron, Notts; Dr. Garlick; Messrs. Beal and Sons, Brighton; Mr. Hammett, Taunton; Mrs. Ernst; Messrs. Kilner Bros., London; Dr. Vernon, Yeovil; Mr. Butcher, London; Mr. Wilson, Somersham; Mr. Heywood, Manchester; Mr. Davies, Pontypridd; Mr. Laurence, Bristol; Mr. Forster, London; Mr. Laskey; Dr. Webb Fowler, Coventry; Mr. Salmon, Birmingham; Mr. Cuthbertson, Pentre; Messrs. Fuller, Bath; Dr. Liveing, London; Mr. Clarke, Clifton; Mr. Culleton, London; Jones, London; Bancroft, York; Alpha, Manchester; A. B. G., London; W. B., London; Oxon and Berks Bank; F.R.C.S., Manchester; Æsculap, London; Birmingham General Hospital; A. A., Forest-gate; A. D. C., Manchester; Ben Rhydding Hydropathic Establishment; A. V., London; H. P., Stoke Newington; M. A. B., London; Physician, Honolulu; Doctor, Isle of Wight; Cambrian, Bristol; Copernicus, London; Royal College of Physicians, London; Omicron, London; Ficus, London; Cornhill, London; Superintendent, Newcastle; P. S., Coventry; Phlegmon, Liverpool; Verax, London; Medica, London; G. F. N., London; A. T., London; Chirurgeon, London; Hope, London; Dispenser, Birmingham; Delta, London; Harold, London; H. E. E., London; A. H. T., London; J. B., London; T. M., London; Vicar, London; Hiscock's Library, Richmond; A. W. H., London; Mutual, London;

Cambrian Daily Leader, Surrey Advertiser, Argus (Melbourne), Mining Journal, Herald and Weekly Free Press, Evening Post, Hertfordshire Mercury, Reading Mercury, New York Herald (London), Southwark, Newington, and Bermondsey Ratepayers' Chronicle, Newcastle Weekly Chronicle, Hastings and St. Leonards Observer, Coventry Times, Liverpool Daily Post, &c., have been received.

Medical Diary for the ensuing Week.

Monday, May 12.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
SOCIETY OF ARTS.—8 P.M. Mr. H. Graham Harris: Heat Engines other than Steam. (Cantor Lecture.)

Tuesday, May 14.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Jean Paul Richter: The Italian Renaissance Painters: their Employments.
SOCIETY OF ARTS.—8 P.M. Dr. Salviati: Venetian Glass.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. John Croft: Plastic Operations on the Neck and Arms for severe Cicatricial Deformities after Burns.—Mr. Herbert W. Page: A case of Gastro-enterostomy, together with a Table of the Cases hitherto recorded.

Wednesday, May 15.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
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GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
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ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical visits on Wednesday and Saturday at 9.15 A.M.
ROYAL METEOROLOGICAL SOCIETY (25, Great George-street, Westminster).—7 P.M. Mr. W. H. Dines: Account of some Experiments made to Investigate the Connexion between the Pressure and Velocity of the Wind.—Dr. C. H. Blackley: On an Improved Method of Preparing Ozone Paper, and other Forms of the Test, with Starch and Potassium Iodide.—Mr. Frank Russell: On the Climate of Akassa, Niger Territory.
SOCIETY OF ARTS.—8 P.M. Mr. A. F. Yarrow: The Use of Spirit as an Agent in Prime Movers.

Thursday, May 16.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Dewar: Experimental Lecture on Chemical Affinity.

Friday, May 17.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—9 P.M. Prof. Silvanus P. Thompson: Optical Torque.

Saturday, May 18.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Joseph Bennett: The Origin and Development of Opera in England (with Musical Illustrations).
NEUROLOGICAL SOCIETY OF LONDON (Physiological Laboratory, University College).—5 P.M. Discussion on Pyrexia.

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